AUGUST, 1949

Commercial Commercial Refrigeration



MERCHANDISING, SELLING, INSTALLATION AND MAINTENANCE OF COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT

For Faster, Easier Servicing make your next charging and testing unit

The preference accorded Imperial Charging and Testing Units is a fine tribute to the quality and leadership that is so typical of Imperial Products for the refrigeration field. Ask for Catalog No. 80-A covering the complete line.

" IMPERIAL

IMPERIAL DOUBLE GAUGE CHARGING and TESTING UNIT

An excellent general purpose unit for charging high or low side; purging; charging oil in low side; testing low side for leaks; setting low side controls; setting expansion valves, etc. Has 0 to 300 lb, pressure gauge and 30" to 60 lb, compound gauge.

	2" gauges	
	21/2" gauges	
		3.05

IMPERIAL HI-LO CHARGING and TESTING UNIT

This entirely new type of charging and testing unit makes a great hit with refrigeration men everywhere because it combines all the advantages of a double gauge unit with the lightness, compactness, and ease of handling of a single gauge unit. A single master control handle operates the double acting valve. Permits reading pressure on high or low side with a single gauge. See illustration.

No. 504-C has 2½" compound gauge, 30" to 50 lbs., retard to 200 lbs.





IMPERIAL SERVICE VALVE KIT FOR HERMETIC UNITS

This improved service valve kit is a favorite with refrigeration men. Note that new parts have been added, and kit is now equipped to take care of an increased number of hermetically sealed units including new models. Takes new Frigidaire.

Furnished in sturdy, metal case arranged so that valve, wheel handle and gauge are kept completely assembled, ready for use. Includes 10 adapters, 6 wrenches, 5 gaskets, plug, set screw and instruction chart.

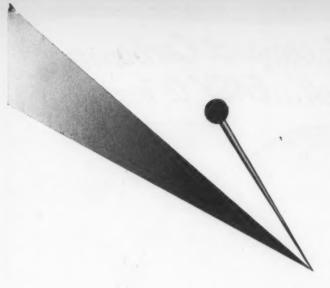


SEE YOUR JOBBER

IMPERIAL

THE IMPERIAL BRASS MFG. COMPANY 536 S. RACINE AVE., CHICAGO 7, ILL.

Fittings · Valves · Driers · Fitters · Floats · Charging Lines · Tools for Cutting, Flaring, Bending, Pinch-off, Swedging



"Pin Point" Cold Control

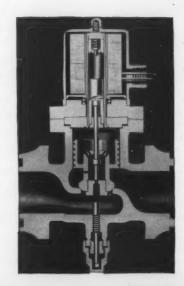
nstant-acting Alco Solenoid Valves control refrigerant flow with "pin point" accuracy.

They are electrically operated by the temperature of the medium to be cooled and respond instantly.

Immune to heat, cold, moisture or current variations.

Rugged, corrosion-proof construction • Moistureresistant coils • Positive closing • Available at your wholesaler's for all refrigerants and applications. For full details request Bulletin covering intended use.

ALCO SOLENOID VALVES





ALCO VALVE CO.

843 KINGSLAND AVE. . ST. LOUIS 5, MO.

Valves; Pressure Regulating Valves; Solenoid Valves; Float Valves; Float Switches.

Here's why this compact Carbonator is EASY to sell... EASY to install...

New packaged TEMPRITE saves real money for owners of Taverns, Soda Fountains, Roadside Stands, etc.

You can get steamed up over the new Temprite Carbonator with little effort... and you can sell it like hot cakes! It's neat, compact and reliable. It gets the last full measure of instantaneous carbonation from every tank of CO₂ gas—pays for itself in no time at all and saves real money for its owner! There's no waste of CO₂ gas. No venting. No purging.

There are no flat, unpalatable drinks. Every glass sparkles with zip and zing. Carbonation is automatic and controlled.

But just listen to this. The Temprite user gets up to 6450 glasses of highly carbonated water from a 20 lb. tank of CO₂ gas. Can you top this?

The stainless steel carbonator itself is highly simplified; contains no moving parts, and packaged as it is with pump, motor and relay assembly, only three simple connections are necessary for a fast, easy installation. Fits in practically any location or under any fountain. Complete assembly weighs only 59 pounds.

Use the handy coupon below for full details.

TEMPRITE PRODUCTS CORP. 41 Piquette Avenue Detroit 2, Michigan Please send me complete details on your new packaged Temprite Carbonator. NAME COMPANY ADDRESS CITY STATE

Temprite Products Corp. P1 Piquette, Detroit 2

Manufacturers of commercial and cabinet type water coolers, industrial water coolers, carbonators, draught beer coolers, soda fountain coolers, temperature central valves, oil separators, equalizer tanks, heat exchangers, etc. AUGUST, 1949

VOLUME 6, NO. 8

THE COVER . . . This picture looks more like it was taken in the corner pub than on the sales floor of a commercial refrigeration dealer, doesn't it? But if you can't believe your eyes, just turn to page 40 for the full story of how this enterprising dealer makes his customers and prospects feel right at home.

Commercial Refrigeration

AND AIR CONDITIONING

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Established 1944 as THE REFRIGERATION INDUSTRY

THIS MAGAZINE has no stificial affiliation with ANY group, society or essociation.



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The Quality Standards of the Industry

ANSUL WHOLE-SALERS are ready and equipped to render an intelligent, cooperative service to refrigeration service engineers on problems which arise, from time-to-time, in the operation of refrigerating systems. ANSUL REFRIGERANTS are the undisputed quality standards of the Refrigeration Industry . . . and this enviable recognition is protected and maintained by strict laboratory control of every step in the manufacture of Ansul Sulfur Dioxide and Ansul Methyl Chloride.

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ANSUL CHEMICAL COMPANY ANSUL SUEFUR DIOXIDE, ANSUL METHYL CHLORIDE, ANSUL OIL, KINETIC'S TEREONST

AMAZING RESULTS FOR USERS AND BIG PROFITS FOR YOU WITH NEW CARRIER HUMIDRY



REMOVES 34 PINTS OF WATER IN 24 HOURS

Completely self-contained —just plug in for operation.

Protects clothes, linens, leather goods, etc., from mold and mildew.

Reduces rust and corrosion of metal objects.

Speeds drying of plaster, paint – saves costly delays.



• Moisture and mold move out when a Carrier Humidry moves in to tackle excessive humidity. This small, new compact unit does a whale of a job. too, against rust and corrosion — and offers you profits plus with a large, ready-made market. No installation problems — just plug it in.

HUMIDRY MARKET IS BIG

-here's part of it!

Storage areas, home basements, workshops, laboratories, photo darkrooms, museums, library vaults, telephone exchanges and scores of other enclosed spaces where high humidities cause damage from rust, mildew, mold or rot. Humidry is also used to speed production, reduce drying time and save costly delays in new construction and renovation.

PROOF OF PERFORMANCE

- a few of many letters from enthusiastic users

"... the recent installation of the Carrier Humidry in our leather luggage basement area has entirely corrected our spoilage problem. We no longer have any mold or leather deterioration from dampness." c.J.L.

"After we had attempted, unsuc-

cessfully, to dry our merchandise stock room by several methods, your machine was recommended to us. The results have been amazing and I am glad to tell you that today our cellar is perfectly dry and our stock no longer threatened by mildew." J.H.F.

"Your Humidry unit was purchased for the basement of my home (where I have two hobbies—woodworking and photography). The result is that this last summer, using the Humidry, I was able to avoid both rust and mildew close to 100%." J.R.N.

A "NATURAL" FOR PROFITS

Carrier know-how and manufacturing standards are built into each unit, so your customers are assured efficient, trouble-free performance. The Humidry is a "natural" you can't afford to overlook. Mail the coupon today and get the facts about this money-maker. Carrier Corporation, Syracuse, N.Y.

	CORPORATION Geddes Street, Syracuse 1, New York
Please	end me more information on the new Carrier Humidry unit.
	□ I am □ I am not interested in becoming a dealer.
	6
Street	

Here's IMPROVED PERFORMANCE IN DRIER-FILTERS by REMCO

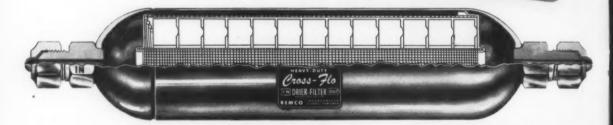
NEW "Cross-76"
FEATURING THESE
TWO INNOVATIONS

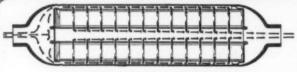
MOLDED DU-CAL DRIERITE

AS THE IDEAL DRYING AGENT FOR LIQUID LINE APPLICATION

SPUN ENDS

AS THE IDEAL LEAKPROOF





Cross-Flo capacities: 1, 2, 3, & 5 tons.
Connection sizes: "4" thru "4" SAE:
"4" thru "4" O.D. SWT.

In this more efficient "Cross-Flo" the refrigerant flows across and between the self-spacing Molded Du-Cal discs which remove and retain up to 20% of their weight in moisture even at refrigerant temperatures up to 150° F. without breaking down, powdering, dusting, or allowing any pressure drop. Note how the jointless copper body with SPUN ENDS provides the ideal design for integral sweat-end connections.



Standard-Duty Capacities-1/4, 1/2, 3/4, 1 H.P.

MOLDED DU-CAL DRIERITE Also AVAILABLE IN REMCO'S STANDARD-DUTY DRIERS

These are the ideal low-cost quality driers for field applications and original equipment. Available in connection sizes of 4" to 8" SAE (with seal caps). Standard Duty Driers available with integral sweat connections . . . special to order in production quantities.

-note - REMCO's

"CROSS-FLO" & STANDARD-DUTY LINES ARE ALSO AVAILABLE WITH SILICA GEL—for Lowside, Suction Line, or Other Cold Locations

-Send for Illustrated Descriptive Literature-

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Melchior, Armstrong, Desssau-Ridgefield, N. J.

REMCO
INCORPORATED
ZELIENOPLE, PENNSYLVANIA

How many BTU's per horsepower hour?



Refrigerating equipment installation engineers know that the refrigerating capacity of a condensing unit is measured in terms of BTU's produced per hour per horsepower. How many BTU's in a horsepower hour depends entirely upon compressor design and operating effi-ciency. Cost of BTU production is the whole cost of refrigeration.

Obviously, if a required refrigeration capacity can be produced with less horsepower, less running time, less wear in the unit, you can see where worthwhile installation economies can be effected plus a greater customer satisfaction.

BRUNNER MANUFACTURING CO. UTICA 1, NEW YORK, U.S.A.

IN YOUR BUSINESS it's well to know all the answers. It will be time well spent to let a Brunner factory representative show you the many reasons why Brunner compressors deliver such a high and dependable efficiency. Just send your name and address.







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protects every step of the way STORAGE

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When you install a

Type G VALVE

You get

Peak Porformance

Peak Performance on All Jobs...under All Conditions!



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Get Peak Performance

on all your commercial refrigeration installations... insist upon Sporlan Type G Thermostatic Expansion valves with Selective Charges when ordering from your wholesaler.

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7-7ested Features in... FERRY WING CAP VALVES



Compact and light in weight, these Henry Wing Cap Valves give you maximum strength and safety under all conditions of service. Available in non-ferrous alloy with solder connections; in semi-steel with F. P. T. connections; and in semi-steel

> with companion flanges, bolts and gaskets—with brass tailpieces for freon and steel tailpieces for ammonia or freon. Size range: 1/2" to 51/4" OD solder connections: 1/2" to 8" F. P. T. or steel weld connections.



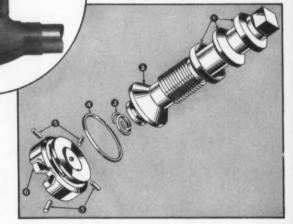
Wing Cap may be inverted and socket used to operate valve.



No Need to Remove Bonnet Assembly Before Soldering.

Equipped with patented, non-rotating valve stem disc. Stem disc has soft metal alloy insert which seats easily in valve body. Disc is self-aligning and chatter-proof. All valves are back-seating and may be repacked under pressure, if necessary.

SOLD BY LEADING WHOLESALERS



LIST OF PARTS

- 1. Stem Packing
- 2. Back Seating Stem
- Spring makes self-aligning disc chatter-proof.
- 4. Spring Retaining Ring for locking pins.
- Locking Pins.
- Non-rotating stem disc with replaceable soft metal alloy insert.

Valves, Driers, Strainers, Control Devices and Accessories for Refrigeration and Air Conditioning and Industrial Applications.



ENRY VALVE

Melrose Park, III. (Chicago Suburb) Cable: HEVALCO, MELROSE PARK, ILLINOIS

AUGUST, 1949 . COMMERCIAL REFRIGERATION

76 TOOLS EVERY REFRIGERATION SERVICEMAN MUST HAVE!



RF85 SET

Here's a Hard-Working Partner for a good REFRIGERATION SERVICEMAN

BONNEY RF85 SET OF 76 TOOLS includes:

1/4" and 3/8" square drive sockets & attachments, double offset wrenches, combination wrenches, right angle wrenches, flare-nut wrenches, hexagon keys, screw drivers, pliers, tube benders, tube cutter, flaring tool, hacksaw, hammer, shop knife

When your "know-how" is teamed up with this complete and handy tool set you are bound to make more money by speeding up your jobs. You can reach into this red crackle-finish metal box-mighty handsome!-and pull out just the tool you need to service toughest jobs. Get yourself a handy "partner"—this Bonney RF85 Set of 76 easy-handling, extra-tough

tools. Whether you need a set or a single tool-for a complete description of the entire line-up...

Mail Coupon Below

for NEW BONNEY CATALOG and name of nearest Bonney refrigeration jobber.





World's Finest

BONNEY FORGE & TOOL WORKS



ALLENTOWN, PA.

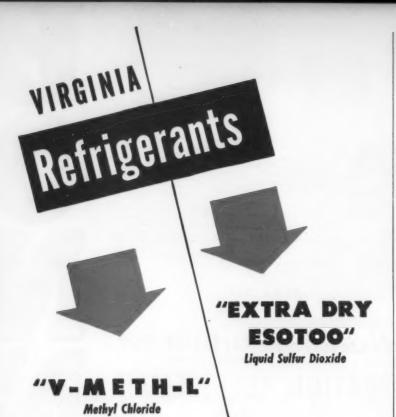
BONNEY FORGE & TOOL WORKS, ALLENTOWN, PA.

Please send me without charge, latest catalog showing Bonney Tools and Tool Sets.

NAME.

ADDRESS

ZONE__STATE



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LETTERS

A "First" Gets Plaudits

EDITOR:

We wish to sincerely thank you for the list of manufacturers' representatives you recently forwarded to us. We are sure that this list will be extremely useful and we certainly appreciate this outstanding service.—S. H. Batt, sales manager, Fogel Refrigerator Co., Philadelphia.

EDITOR:

We very much appreciate receiving a copy of "Manufacturers Representatives Serving the Refrigeration and Air Conditioning Industry." We think you have done a mighty fine job in rendering this service to the industry. Thanks again!—R. H. Spangler, R. H. Spangler & Co., Inc., St. Louis.

EDITOR:

Your prepared booklet showing the various manufacturers agents in the industry is very nicely put together, informative, and I am sure, helpful.—Charles Q. Sherman, president, Refrigerated Equipment Sales Corp., New York City.

EDITOR

The pamphlet which you sent us, entitled "Manufacturers Representatives Serving the Refrigeration and Air Conditioning Industry," certainly represents a tremendous amount of work and you are most ambitious to undertake such a project.—
H. F. Spoehrer, Sporlan Valve Co., St. Louis.

Marshalltown Gauges Made In Pennsylvania

EDITOR

Can you give use the name and address of the concern who manufactures Marshalltown gauges and thermometers?—Iddo W. Lampton, Enochs Sales Co., New Orleans, La.

The name and address of the concern manufacturing "Marshalltown" gauges and thermometers follows: Marshalltown Mfg. Co., 810 Nevada, Marshalltown, Pa.

Reader Seeks Makers Of Kerosene Units

EDITOR:

Would you be kind enough to furnish us with the names and addresses of manufacturers of kerosene refrigerators?— Robert E. Leopold, Capitol Export Co., Elmhurst, New York.

The only firms which to our knowledge are presently making kerosene-operated refrigerators are Servel, Inc., 119 Morton Ave., Evansville 20, Ind., and Bolivar Refrigerator Co., Inc., 36 Bridge St., New York 4, N. Y.

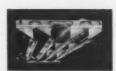


BUSH PLASTI-COOLER—Jet black plastic baffles eliminate sweating . . . enhance appearance. Scientific pitch for maximum air discharge.

STANDARD UNIT COOLER — Slotted hangers for quick, easy installation. Nine stock models . . . a size for every refrigeration application.

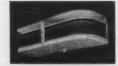
WALL-MOUNTED PANEL COOLER
— Compact . . . high capacity . . . ideal unit for low ceiling walk-in coolers leaving the head room all free.

BUSH WJ COOLER — New type unit cooler for installation at juncture of wall and ceiling. Proper air distribution throughout a 180° radius.









Because BUSH HEAT TRANSFER PRODUCTS are scientifically designed, expertly manufactured to top quality standards, and accurately rated they are naturally easier to sell, faster to install, and require less service. This means MORE PROFIT for you. Get acquainted with the Bush Representative in your territory. He's a good man to know.

Buy the Best -and the Best is Bush



BUSH MANUFACTURING COMPANY - WEST HARTFORD 10, CONN.



are **BEST...**

Wagner 87% tin babbitt-lined bearings are best because they have:

- 1. Extreme load-carrying capacity.
- 2. Excellent anti-seizure properties.
- 3. High resistance to corrosion by acids present in oils.



These signs identify Wagner's Authorized Service Stations and Parts Distributors. They mean that genuine Wagner replacements are readily available.







6442 PLYMOUTH AVENUE ST. LOUIS 14, MO., U. S. A.

ELECTRICAL EQUIPMENT AND AUTOMOTIVE BRAKE PRODUCTS

LETTERS

We Stand Corrected!

EDITOR:

I noticed that in your "Letters" column in the June issue of COMMERCIAL REFRICERATION AND AIR CONDITIONING you published an inquiry concerning the address of the company which makes "Freeze-O-Matic Junior Refrigerator."

Since I noted that you gave an incorrect answer and since I happen to be familiar with the product in question, you will find that the correct address is: Acme National Refrigeration Co., 625 Dean St., Brooklyn, N. Y.—George W. Meek.

Marketing Handbook Stirs Enthusiastic Response

EDITOR:

We are very appreciative of your new MARKETING HANDBOOK and have used it extensively in getting acquainted with new accounts.—Gerald Hawley, Midwest Industries, Inc., Kansas City 2, Mo.

EDITOR:

We have received THE COMMERCIAL REFRIGERATION & AIR CONDITIONING MARKETING HANDBOOK for 1949 and feel that it serves a very definite purpose within our organization.—Alpha Metals, Inc., Brooklyn I, N. Y.

EDITOR

We wish to acknowledge receipt of a copy of your MARKETING HANDBOOK. I have had the time to thumb through it only, but I have already noted a number of features which can be exceptionally useful. Many thanks for your fine issue, for it appears to be a work well done by you and your associates.—Howard R. Roberts, general sales manager, Refrigeration Dept., Whiting Corp., Harvey, Ill.

EDITOR:

THE COMMERCIAL REFRIGERATION & AIR CONDITIONING MARKETING HANDBOOK is very complete and extremely interesting to us. Please accept our sincere thanks for sending us a copy.—Agnew H. Bahnson, Jr., president, The Bahnson Co., Winston-Salem, N. C.

Manufacturer's Agent Seeks New Lines

EDITOR:

We are manufacturers' agents active in the industrial heating and mechanical equipment field, and are seeking additional manufacturers to represent in this area.

It would be greatly appreciated if you could put us in touch with any manufacturers brought to your attention who areseking representation in the New York-New Jersey-Connecticut area. If this is possible, or if you have a list for this purpose, we certainly would be grateful for having our name entered.

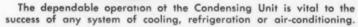
All our men are trained engineers and experienced in the field. If you desire any further information about us, we shall be happy to comply.—A. Pekelney, Al-Therm,

Inc., Brooklyn 5, N. Y.



THE HEART
OF GOOD
REFRIGERATI
AND AIRCONDITIONI
SYSTEMS





It is this marked dependability of Mills Condensing Units that has been responsible for their continued and growing use by those most experienced in the use of such units.

MILLS Units are compact, sturdy, efficient—made in a range of capacities to meet practically all applications:— $\frac{1}{4}$ to 3 h.p., air-cooled; $\frac{1}{4}$ to 10 h.p., water-cooled; and $\frac{1}{4}$ to 3 h.p., combination air- and water-cooled types.

New Catalog 204-1 is a handy guide to Condensing Unit selection —write for a copy.

MILLS INDUSTRIES, Incorporated

CHICAGO 39, ILLINOIS

Ask for New Catalog 204-1



4100 FULLERTON AVENUE

COMPRESSORS and CONDENSING UNITS



"Keep cool with ESTON!"

estun

REFRIGERANTS

Uniform high quality, low moisture content and fast, dependable service mark the Eston line of refrigerants. Buy from the Eston Wholesaler; he is your best source of supply.



METHYL CHLORIDE SULPHUR DIOXIDE METHYLENE CHLORIDE

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Retrigerating & Power Specialities Co.
Retrigerating & Power Specialities Co.
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Bowen Retrigeration Supplies, Inc.
TUCSON, ARIZ.
Arizona Retrigeration Supplies, Inc.
TULSA, OKLA.
Polmer Supply Co.

Products of ESTON CHEMICALS, Inc., Los Angeles

Palmer Supply Co.
VANCOUVER, B. C.
J. P. Southcott & Co., Ltd.

IN THE GREAT SHAMROCK

NIBCO

Valves and Fittings Help Make Construction History

More than \$20,000,000 were invested to make The Shamrock in Houston, Texas, the world's finest hotel. This photograph can only suggest how well Owner McCarthy, the architects and contractors have succeeded.

Air conditioning and television in every one of the 1100 guest rooms, swimming pool, three public and nine private dining rooms, complete laundry and dry cleaning plant, a 1000-car garage — these are only a few features of The Shamrock. Equally vital to the comfort of guests and smooth operation of the hotel is the vast network of piping required for the plumbing and air conditioning of this great structure.

It is significant that here—where only the best is good enough—NIBCO valves and fittings have been used on the hot and cold water of the plumbing and the chilled and hot water lines of the air conditioning system. The builders of The Shamrock set out to establish a new standard in hotel con-

struction and equipment. We of NIBCO are gratified to have had a part by supplying, through our distributor and the mechanical contractors, the fittings and valves which are the heart of the plumbing and air conditioning services.

Whether you have a large or a small job in plumbing, heating, air conditioning or refrigeration, it will pay you to standardize on dependable NIBCO valves and fittings. Send now for Catalog F with complete information on our lines which makes it easy to order NIBCO fittings for your particular jobs.

Northern Indiana Brass Co., 814 Plum St., Elkhart, Ind.



The Shamrock

Architect and Engineer

Wyatt C. Hedrick

Plumbing, Heating and Air Conditioning installed by

Charles G. Heyne & Co. C. Wallace Plumbing Co.

Dallas Air Conditioning Co.
Operating as Associated Mechanical Contractors

Nibco Fittings furnished by

Morrison Supply Co. Fort Worth 1, Texas, distributors

Toole & Litchfield Co., Houston, Texas

Field Representatives

SERVICE MEN...

MEN... HARDWARE REPLACEMENT

means more sales...easy sales...good profit

in addition to your time and service charges

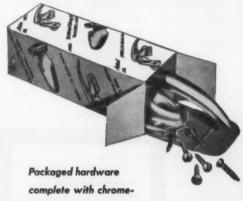
YOU MAKE

ON HARDWARE

There's a big market for hardware replacement business right in your own city. Worn locks, strikes, and hinges mean poor refrigeration... you can replace them quickly, easily, profitably with Grand Rapids Brass packaged units. In addition to your time and service charges, every \$20.00 sale of Grand Rapids Brass replacement hardware means \$8.00 profit for you!

Be sure of satisfied customers. Beautifully designed chrome-plated hinges operate smoothly on self-lubricating oilite bearings and stainless steel pins. Install these units and insure complete customer satisfaction. Take advantage of this profit opportunity. See your jobber today.





Grand Rapids Brass

GRAND RAPIDS 4, MICHIGAN

DIVISION OF CRAMPTON MANUFACTURING COMPANY

and AIR CONDITIONING . AUGUST, 1949

Canadian Representatives—RAILWAY ENGINEERING SPECIALTIES, LTD., Montreal—Toronto—Winnipeg

plated brass screws.

Export Representatives — MELCHIOR, ARMSTRONG AND DESSAU, Ridgefield, New Jersey



SERVICE ENGINEERS! DEALERS! Cash in on the compressor replacement market!



COMPRESSOR BODIES

FIT MOST MAKES of condensing units

- Fit most brands of refrigeration or air conditioning equipment.
- Compact, easy to install.
- Shipped complete with flywheel and service valves.

New life in old refrigeration equipment...when you replace the compressor with a new General Electric high-capacity compressor body. You can stretch the lifetime of the equipment...and you'll get real G-E dependability and economy ... at low cost! Here's how:

Many times a condensing unit that's old and inefficient can still do a satisfactory job if you replace the compressor. And, of course, simple compressor replace-

Get vour FKE

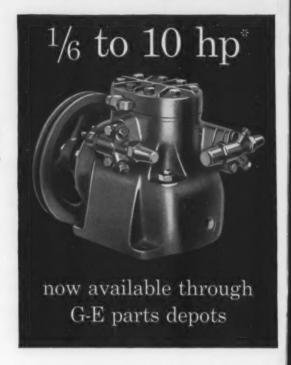
.G-E Compressor Body Specifications (%-10 hp) plus Belt, Pulley Easy Selection Table

GENERAL ELECTRIC COMPANY, Air Conditioning Department, Section CR-18, Bloomfield, New Jersey

Please send me your new specification sheet on G-E compressor bodies including belt and pulley selection.

Please send me condensed catalogs on G-E condensing units and replacement parts.

I am a service engineer dealer contractor.



ment is comparatively inexpensive. For best results, be sure to recommend one of the new, top-quality G-E compressor bodies. They're easy to install-they fit most condensing units and types of equipment. And don't forget-it's easier to sell your customer on a replacement job ... when he knows he's getting General Electric quality and dependability. G-E compressor body prices are right. Check them today!

CHECK THESE G-E COMPRESSOR FEATURES!

Dependability! High quality materials throughout

Quiet Operation! Counterbalanced crankshaft

Sure Lubrication Check! Oil sight glass

Low Maintenance, Fewer Leaks! Special G-E balanced bellows shaft seal

Low Power Costs! G-E high volumetric efficiency

NOW YOU CAN BUY the compressors that have helped famous G-E condensing units build up an outstanding record for long life and rugged dependability! More than a million G-E commercial units in service today!

mail this coupon TODAY!

Order from this table

COMPLETE SPECIFICATIONS

1/6-10 HP

	1/6, 1/4, 1/3, 1/2	1/2, 3/4	1, 1½, 2	3	5	7½, 10
Catalog No.	CW286	CW3A8	CW4A3	CM603G7	CM602G8	CM802E9
to. Cylinders	1	2	4	2	2	4
Aax. Speed	1700 rpm	1700 rpm	1725 rpm	. 920 rpm	920 rpm	920 rpm
Bore (in.)	1-1/2	1-1/2	1-1/2	2-1/2	2-1/2	2-1/2
Stroke (in.)	1-1/4	1-1/4	1-1/4	2-3/4	3-1/2	3-1/2
Displacement (cu. in. per rev.)	2.21	4,42	8.84	27.0	34.3	68.6
Flywheel Dia. (in.)	7.442	7.442	7.442	15-5/8	15-5/8	19-5/8
No. Belts-Cross Section	1-A	1-A	2-A	3-A	3-A	3-B
Height of Body without flywheel (in.)	7-15/16	8-3/16	9-11/16	17-27/32	17-27/32	18-7/8
Suction Valve	1/2 F	3/8 F	7/85	1-1/8 S	1-3/8 \$	1-5/8 \$
Discharge Valve	3/8 \$	1/25	5/85	3/45	7/85	1-5/8 \$
		MOUNTING	DIMENSION	s (IN.)		
	A 5-9/16	A:5-9/16	A 6-7/8	A 8-3/8	A 8-3/8	A 10-1/
1 4 1	B 4-5/8	B 4-5/8	B 6-3/16	B 6-1/2	B 6-1/2	B 6-1/2
Base Dimensions	C 2-3/8	C 2-7/16	C 1-13/16	C 4-1/4	C4-1/4	C 3-3/4

*Larger compressors—to 75 hp—are also available. Contact your authorized G-E Parts Depot.

Fast,

when you want them

G-E CONDENSING UNITS, 1/6-10 HP

COMPRESSOR BODIES, 1/6 TO 75 HP

at 56 G-E PARTS DEPOTS
ALL OVER THE U.S.

GENERAL



ELECTRIC

Entrance to "Danceland" with crowd shown waiting



of Comfort

Marla Adds A New Note

Evaporative Condensers Serve Huge Ballroom Silently, Economically

Lots of room — plus plenty of cool comfort — make the West View Park "Danceland" in Pittsburgh a popular spot night after night. Dependable Marlo Evaporative Condensers, operating silently and efficiently, help maintain the kind of comfort that means bigger, better crowds — continued good business!

 Marlo cooling units mean better business for you and your clients.

• They're compact, easy to install — and operate at a 95% water saving!

MARLO : HEATTRANSFER



One of the two Marlo EC Evaporative Condensers that serve the giant "Danceland."

 A York Corporation installation for the Harrison Construction Co.



Write for MARLO EC Bulletin

Mahla COIL CO. • 6135 Manchester Rd. • St. Louis 10, Mo.

Another KEROTEST first!

FORGED BRASS GLOBE VALVES

Unequalled

- Quality
- Appearance
- Performance

STANDARD SIZES 7/8" to 21/8" OD

at your

KEROTEST

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Wholesaler NOW!

AMERICA'S FIRST NAME IN QUALITY VALVES

KEROTEST MANUFACTURING CO.

PITTSBURGH 22, PA.

and AIR CONDITIONING . AUGUST, 1949

you'll save



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when you standardize on

because of:

- Immediate Availability on Many Types and Sizes.
- Improved Engineering Features that Assure Long Life and Efficient Operation.
- A Liberal Warranty.
- A Wide Variety of Types and Sizes.
- Nationwide Service Facilities with Replacement Motors and Parts - When You Need Them - Where You Need Them.



Repulsion Start Induction Motor 16 to 15 h p.

notors

Open-type, Polyphase Squirrel Cage Motor 1/4 to 400 hp.

Explosion-Proof Motor 1/2 to 200 h p.

Totally-enclosed, Fan-cooled



Motor 11/2 to 200 h p.

Regardless of what your motor requirements may be, Wagner can furnish a standard motor to fit your needs. Twenty-nine branch offices, located in principal cities, are ready to assist you whenever you have a motor problem. Write for Bulletin MU-185 for information on the complete line of Wagner Motors.

Wagner Electric Corporation 6442 PLYMOUTH AVE., ST. LOUIS 14, MO., U. S. A.

Consult Wagner Engineers on all Electric Motor Problems ELECTRIC MOTORS . TRANSFORMERS . INDUSTRIAL BRAKES . AUTOMOTIVE BRAKE PRODUCTS

M49-11

AUGUST, 1949 . COMMERCIAL REFRIGERATION

YOU CAN BE SURE .. IF IT'S Westinghouse SELL THE LEADER...
SELL WESTINGHOUSE!

THE COOLER THAT HAS Everything!



NOW . . . here's something to crow about!

Only Westinghouse has all these Selling Features. Look 'em over and you'll see why Westinghouse Water Coolers are the fastest selling line-the Leader line. You get the Foot Pedal Control, an Automatic Stream Height Regulator, a Stainless Steel Top, and the Anti-Squirt Bubbler. All these features are backed up by the famous Westinghouse 5-Year Guarantee Plan on the Hermetically-Sealed Refrigeration System. Also available for these Westinghouse Water Coolers, is a Push Button Bubbler Kit*. Add them up . . . you'll agree that "here's something to crow about" . . . and remember, a capacity and type for every need.

WESTINGHOUSE ELECTRIC CORPORATION

Appliance Division • Springfield 2, Mass.

*Available at slight additional cost

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FOR FURTHER INFORMATION CALL YOUR WESTINGHOUSE DISTRIBUTOR OR MAIL THE ATTACHED COUPON TO WESTINGHOUSE ELECTRIC CORPORATION SPRINGFIELD 2, MASS.

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WESTINGHOUSE ELECTRIC CORPORATION Appliance Division - Springfield, Mass.

RCRAC

"Everything Desirable in a

Pressure Control is Contained in

the Penn 270"

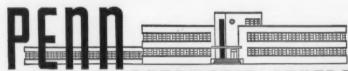


W. Floyd Parker Carrier Atlanta Co. Atlanta, Géorgia

Floyd Parker is "big league" in air conditioning and refrigeration. And he hits the ball right on the nose when he says, "Everything desirable in a pressure control is contained in the Penn 270." Refrigeration men will know that Mr. Parker is thinking of the rugged two-pole construction, the adaptability and the easy installation and setting of the dependable 270.

You'll find these same reliable qualities in the new Penn Series 321 Automatic Hot Gas Defroster. On frozen food cabinets, meat cases, blast coils or undercoiled gravity installations it's a big source of *profitable* new business for refrigeration men. What's more, the Penn Series 321 Automatic Hot Gas Defroster is trouble-free and *positive* in operation.

See your wholesaler or write today for full details on the new Series 321 and the complete Penn line. Penn Electric Switch Co., Goshen, Ind. Export Division: 13 East 40th Street, New York 16, U. S. A. In Canada: Penn Controls Ltd., Toronto, Ontario.



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, PUMPS, AIR COMPRESSORS, ENGINES, GAS RANGES

News . Laws . Trends

Needed: Constructive Salesmanship

HE next five to 10 years will offer one of the greatest opportunities in all history for constructive selling. That's the opinion expressed by Jack Lacy, president of Lacy Sales Insti-

tute. Boston, in his address before a recent sales conference of the New York-New Jersey regional sales council.

With almost every type of business trying to make a profit in the face of rising costs, expert salesmanship is badly needed, he asserted. The present narrow gap between production costs and retail prices can best be widened by training more productive salesmen so that the total volume can be increased with smaller proportionate expense. Lacy has personally trained more than 8000 salesmen during his business career.

of Room Coolers Claimed

"Biggest Shipment" WHAT is believed to be the largest ditioners in the industry's history has been made by the Philco International Corp., export subsidiary of Philco

Corp. The shipment comprised 1000 console-type units, all of the same model, designed for cooling rooms up to 500 sq. ft. in area with normal ceiling height.

In reporting the shipment, Radcliffe L. Romeyn, Philco International vice president, said that the same company that bought this shipment of units had purchased 600 similar air conditioners last year. Destination of the units was not announced, but Romeyn said they were going to "a region where the climate from early spring to late autumn is notoriously sultry"

To give you some idea of the shipping space required for the units, they took up 44,000 cu. ft. in the ship's hold, and 19 box cars were needed to earry them to their port of embarkation. All told, the shipment weighed 566,000

pounds.

The Story of a Comeback

BURNED out of its Seattle plant in June of last year by a fire which destroyed all of its manufacturing facilities, Sweden Freezer Co., maker of soft ice cream freezers, is back in

business and bigger than ever.

Two days after the fire, company officials had found new quarters in a large concrete block plant less than two miles from the old one. Production started within a week, and within 12 days the first completed machine

rolled from assembly line to test block. Two months after the fire, production was equal to the pre-fire figure: today, according to company officials, it is the highest in the company's history.

The year since the fire has been a busy one. Besides introducing several new models and improving existing ones, new testing devices have been developed for checking of electrical and refrigeration systems, with an eye to reducing service and installation problems. Advertising has been expanded, and new dealers added.

A year ago, the company's outlook was pretty dark; today, with facilities, production and sales improved, officials say it is the brightest in the history of the

organization.

Cooling Ups Coal Output

N Great Britain, refrigeration is being used to increase coal output. Sinking mine shafts through waterfilled porous sandstone normally is a very slow and expensive construction

job. However, by freezing the area through which the shaft is to be sunk, the more than 1000 gallons of water seepage per hour is controlled and the sinking, difficult in itself, is carried on without stoppage. Freezing plant consists of twin duplex vertical compressors, each capable of extracting 280,000 Btu at 4 F brine temperature; two brine coolers of the immersed type, eight stacks of atmospheric condensers, and centrifugal brine and water pumps.

Kicking This Bucket Won't Hurt a Bit

UST out is a new sponge rubber ice bucket for home use, designed to fit the top shelf of the refrigerator so that the user may store cubes and make news ones before guests arrive.

The bucket will hold three average trays of ice (48 cubes), and the manufacturer says tests have shown it will preserve cubes for at least 18 hours in normal temperature rooms.

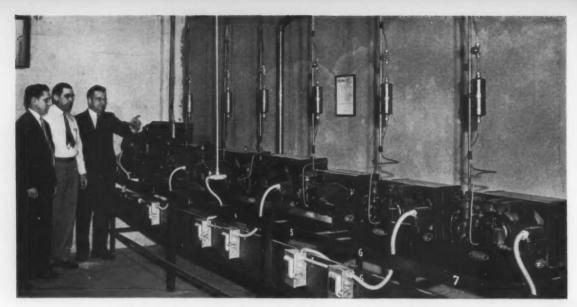
Sturdily constructed, the bucket nevertheless can be squeezed so as to form a pouring spout to drain off excess water, or twisted to break apart frozen-together cubes. It has a 3-quart capacity and holds several bottles of beverages, beer, etc. for quick chilling.

Ice May Freshen Salt Sea Water

EFRIGERATION as a means of extracting fresh water from the sea may be possible, says Myron Tribus, a University of California engineer.

"Nature has been doing it for a long time at the earth's two poles. Ice floes there are pure water, and freezing has been a laboratory purification technique for some time," he said.

"Man hasn't seriously considered it before, but it might be the most practical approach to the problem." Tribus said present-day methods of tapping the sea for fresh water are impractical when used on a large scale. He added that "perhaps the utilization of sea water to produce power, with fresh water as a by-product, might be a satisfactory solution to both water and power shortages."



Robert S. Pearson (right) points out to customer Phil Clauss (in shirtsleeves) the neatness with which his restaurant cooling installation was made and the completeness with which each system in the installation was identified. That's Gene Knepper, manager of the Fort Wayne, Ind., branch of F. H. Langsenkamp Co., looking on.

BEAUTY IS More THAN SKIN DEEP

BEAUTIFUL is the word for the de luxe installations of commercial refrigeration and air conditioning equipment made by Hosler & Pearson, Inc., York distributor in Fort Wayne, Ind.

But Paul R. Hosler, president and treasurer, and Robert S. Pearson, secretary, of this relatively new but enterprising contracting firm would be the first to assure you that they don't plan their installations that way just for looks alone.

"Our experience has definitely proven," Hosler declares, "that a good-looking job will not only serve as the best possible selesman for our firm by favorably impressing everyone who sees it but will also perform much more satisfactorily for a longer period of time, thus keeping our maintenance costs down to a minimum."

That's how Hosler & Pearson has used these deluxe installations as a keen, two-edged sales sword with which to carve itself a steadily expanding niche in what already was a highly competitive market when the firm was formed back in November 1944.

Even if competitive bidding on a job forces you to pare your price to a minimum, Hosler reasons, it is worthwhile to make the installation a good looking one if you want it to really do a selling job for you.

This accent on the appearance of Hosler & Pearson installations results in making every one of their deluxe jobs a true show-piece which the contracting organization uses consistently and repeatedly as an aid to further sales. If the firm has a prospect, for instance, who runs a restaurant, one of the salesmen will personally take him to see one or more of the other restaurant jobs which the company already has installed. Or, if such a personally conducted tour cannot be conveniently arranged, the firm has such confidence in having satisfied its customers that the new prospect will be given the names of a few of these customers in his particular field, together with a suggestion that he talk with any of them directly about the performance of their cooling installations.

One of the principal techniques employed by Hosler & Pearson to "dress up" its installations is the mounting of each and every condensing unit on a neatly painted angle-iron base. When possible, these bases are precut to the required specifications and then welded in the field.

In the case of larger units, too heavy to be supported by such an angle-iron structure, the machines are mounted on either cypress 4 x 4's

or on concrete pads.

Platform mounting of condensing units serves a double purpose, Hosler explains. It not only protects the machinery from damage resulting from the piling of stocks and the moving of heavy equipment, but it greatly facilitates the servicing of these units.

Another feature which this con-

tracting firm stresses in its major installations is the complete and informative labeling of each system so that any owner or maintenance man, even if he has never seen a refrigeration or air conditioning system before, can quickly understand the operation of that particular installation.

By the Numbers

Key factor in this program of identification is the numbering of each separate condensing unit in the installation. This number is plainly stenciled on the framework or base supporting that unit. With this as a starting point, every valve, every thermostat, every magnetic starter, every relay, and every piece of control apparatus is similarly identified by means of small but clearly discernible decal numbers. In this way, it is a simple matter for anybody to trace each separate system in the installation from beginning to end.

Aiding materially in this identification program is a list of each piece of equipment, together with the areas or units which it serves, which is framed under glass to protect it from soil and wear and is mounted prominently on the wall adjacent to the condensing units. In many instances, operating instructions for the equipment and a schematic diagram showing the hook-up of the system are similarly treated.

Handle With Care

Needless to say, considerable attention must be paid to the personnel which is permitted to handle a deluxe installation of this type. Pearson frankly admits that the firm has a few men in its installation department who, although they are adequate refrigeration mechanics, never are turned loose on any of the firm's "showplace" jobs, simply because they don't have the required qualities of neatness in their work.

This works the other way too, Pearson points out, for a man who is neat about the way in which he runs his refrigerant lines is pretty apt to be thorough and careful about all other phases of his work.

Just to be on the safe side, however, both Hosler and Pearson personally follow up on each of these installations, to make sure that the job has been completed properly and that the Continued on page 47

Eyes Right!



A UNIQUE, completely new lens chilling unit for laboratory use has been announced by American Optical Company. This chiller, the first of its kind, incorporates a low temperature cold chamber providing "dry chilling" action to separate lenses cleanly and quickly.

The new chiller supplants present laboratory practices of using ice and cold water for lens deblocking.

The unit contains an hermetically sealed, air-cooled condensing unit and handles 25 or more lens blocks. Factory adjusted to operate at 10 F, the unit features a built-in thermostat requiring no adjustment regardless of room temperature or climate.

The "dry-chilling" action of the unit separates pitch and lenses so cleanly that only a slight surface film remains. Because of this, savings in solvent costs as well as operator's time formerly used in cleaning lenses are possible.

Chilling time is approximately 3 to 4 minutes, depending on lens thickness. Cooling chamber walls are 3 inches thick, the cover is 2 inches thick, and both are filled with Fiberglas insulation. A cold-proof seal is formed between the cover and the unit proper by means of a heavy rubber gasket.

Fast chilling action is provided because the entire bottom surface of the lens block contacts the aluminum chilling plate, insuring speedy cold conductivity. Because of the plate and the 25 recesses, each block is positioned so that scratching is eliminated.

The chiller also separates pitch from lens blocks quickly and cleanly—another money-saving feature.

The unit is finished in metallic green of the same shade as other AO machinery; is of all-steel welded construction; has a recessed black toe plate; a full-length, chromium plated hinge and is almost completely noiseless. It operates on 110 volt, 60 cycle, single phase alternating current.

What's good for the industry is

GOOD FOR ME

Bob Noll's implicit belief in this business truism has boosted his own firm into the million-dollar-a-year bracket and has done much to advance the cause of a progressive training program for refrigeration servicemen

BOB NOLL has done a great deal to better the refrigeration industry in Southern California. At the same time he has boosted his own Los Angeles refrigeration contracting business, Commercial Refrigeration Co., hoisting this firm up virtually

"by its boot straps" until today it grosses a million dollars annually.

All of which substantially supports Noll's business-wise opinion that "what's good for the refrigeration industry is good for me, too."

Many a good thing has come to the refrigeration industry in Southern California through Bob Noll's efforts, but undoubtedly his biggest contribution has been his crusade to make the refrigeration journeyman and apprentice in that area a more highly educated, better qualified, and highly paid employee.

With the advent of World War II, the refrigeration industry in Southern California was confronted with a demand by the United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry, and AFL union, for higher wages for its members. Noll, who had been ac-

tive in the Southern California Refrigeration Contractors Association since its inception, had the practical foresight to realize that alongside union demands for higher wartime wages must come a demand by management that the men receiving this increased income be better schooled in their jobs. And Noll it was who undertook to lead this joint crusade by both union and management.

It was more a crusade of agreement than disagreement. Both the union and the contractors agreed that a trade school was needed. The problem was how a training course geared exclusively to refrigeration repairmen could be organized.

Noll, who had been active in refrigeration sales work since 1926 in the Los Angeles area, had seen the need at first hand. As salesman for various Frigidaire distributors, he'd



Bob Noli's enthusiasm has been injected as much into the industry as a whole as into his own business—and both have profited immeasurably through his efforts.

Climax of Noll's long crusade to make the refrigeration journeyman and apprentice a better educated, better qualified, and better paid employee was this Miami, Fla., meeting between national representatives of management and union. That's Bob at the right.



AUGUST, 1949 . COMMERCIAL REFRIGERATION

risen to district sales manager in Southern California, handling commercial refrigeration. It was natural then, that when he and Stuart Archibald went into partnership in 1938 they became Frigidaire distributors. Theirs was a two-man outfit: Noll and Archibald. But by 1940, through the liquidation of a local distributor, they acquired additional key personnel. With the war's beginning Frigidaire ceased civilian production and Noll and Archibald plunged into priority work, refrigerating a lot of army installations, ships, and aircraft factories.

Bob Noll's crusade to upgrade the quality of refrigeration mechanics really began in 1941. In the summer of that year both federal and state officials asked that an apprenticeship training program be set up in the refrigeration industry—an idea which both the union and the contractors also shared.

Management and labor sat down and drew up an apprenticeship program, geared to a five-year training course. This was the pioneer refrigeration apprenticeship course in the U. S. There were to be 9,000 hours of work and 720 hours of related school instruction, with the first 500 hours being probationary.

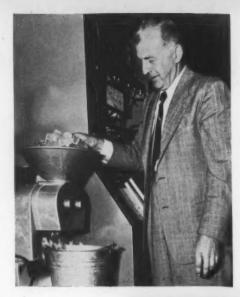
The state approved the program and Jessie Blair, first apprenticeship coordinator, put it into effect. It was Blair, in whose memory a new refrigeration apprenticeship school now is being planned, who put the ideas of management and labor on paper, got them approved by the State, and set up the program in Los Angeles' Frank Wiggins trade school.

As management's representative on the Joint Apprenticeship Committee, Bob Noll had a lot to do with the realization of this program.

Noll and Archibald employed 10 journeymen then. To these journeymen, as to others in the LA area, a special upgrading test approved by both union and contractors was given.

A minority of old-line refrigerator journeymen passed. Some, who didn't take the test, probably could have passed it. But the raw fact that so many of these journeymen failed to pass the exam corroborated what the contractor's association and the union had said—that apprenticeship courses and upgrading classes for journeymen were absolutely necessary.

Many a journeyman who scoffed



Typical of Noll's ingenuity is this ice cube crusher which he and his partner, Stuart Archibald, developed as a companion piece for the ice cube makers which they sold.

These rotary stock bins for small parts and supplies are just one of the measures employed by the company to increase the speed and efficiency of its service operations.



at the school, or even resented it, changed his mind. By 1946 over 100 refrigeration journeymen had graduated and had received Certificates of Proficiency. Some had remained in the course only six months; other required two or three years to meet the stiff graduating examination.

Today an apprentice signs up for a five year course, receives four hours weekly at Frank Wiggins refrigeration laboratory—a minimum of 144 hours yearly. The apprentice begins at 50% of the journeyman's wage, then his income increases every six months after examinations to a higher wage bracket until, by the end of the

five year program, he reaches full journeyman's pay.

Into his night school he brings practical problems he has encountered during the day. But Frank Wiggins is not a manipulative school; it doesn't give a man a tool and tell him to get to work with it. The apprentice gets that kind of experience during his 8-hour regular work day—his total of 9,000 hours of work.

Rather, the school tells a man how to do a thing, why he does it, where he went wrong, schools him in basic arithmetic, finally gets into thermodynamics, compressors, weld-Continued on page 48

DON'T LET YOUR \$\$\$ GO DOWN THE DRAIN

Special attention to the selection and installation of plumbing in insulated floor constructions can cut cost of both installation and upkeep

Concrete Wearing Floor
Grate

Concrete Subfloor

Fill (Cinders)

Solve Minimum Concrete Subfloor

Fill (Cinders)

Grade Minimum Concrete Subfloor

Fill (Cinders)

Grade Minimum Concrete Subfloor

Grade Minimum Concrete Subfloor

The diagram at left shows a common type of floor drain fixture installed in a cold storage room floor. Note that the upper layer of insulation must be cut away because of the position of the drain pipe. The insulating envelope must also be pierced to accommodate the tall dimensions of this drain.

This drawing shows

how a properly designed cold storage room drain can be

installed. The leadoff pipe from the

drain is high enough

to clear the upper layer of insulation.

Because of its squat

drain is readily installed without mak-

ing a complete break

dimensions.

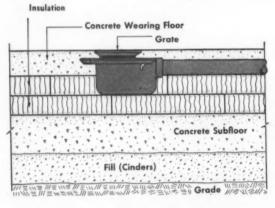
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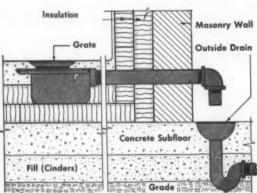
TAKE nothing for granted in the design and construction of a low-temperature room. Even the lowly and insignificant floor drain commands its full measure of attention in construction plans and specifications.

Properly installed, the floor drain can be forgotten forever. Lack of adequate forethought, on the other hand, runs up construction costs and is bound to spell out trouble for the future operation of the cold storage room.

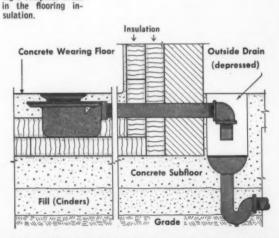
Insulation underneath the concrete wearing floor introduces the basic complication for the installation of floor drains in cold rooms. Standard floor drain fixtures are manufactured for ordinary floor constructions, with no provision for the thickness of floor insulations.

Invariably, the outlet leads away from the trap in the drain at an elevation which interferes with the laying





Where an existing room is converted into cooler or freezer storage area, insulation and wearing surface must be built up over the existing floor slab. These rooms can be drained in accordance with health codes by extending the drain pipe through the insulated wall, out over an existing drain.



New buildings designed for low-temperature storage should always be constructed with a depressed subfloor. Installation of insulation then brings these floors flush with connecting rooms and corridors. Such rooms are drained to an exterior floor drain, depressed to provide the required drip. of the floor insulation. Cutting and fitting the insulation around the drain pipe increases labor costs.

Furthermore, cutting a pipeline through the insulation violates a fundamental principle in low-temperature construction—full thickness of the insulating envelope around a cold room should not be reduced or punctured by through conductors at any point.

The answer to this problem is to select floor drains which are specially designed for cold storage room installation. The significant design feature of these special drains is their short, squat dimensions.

The vertical space between the outlet and the base of a cold storage room drain is very much shortened compared to a common drain fixture. This means that the trap can be placed on top of at least some thickness of floor insulation in any refrig-

Editor's Note: Illustrations and explanatory material for this article on floor drain contructions in low temperature rooms were provided by the Building Materials Division of Armstrong Cork Co., Lancaster, Pa.

erated room. Thus the drain and its lead-off piping can be installed without puncturing the insulating envelope at any point on the floor.

Drains should also have a screwthread collar, so the floor plate can be raised or lowered to accommodate varying thicknesses of wearing floor.

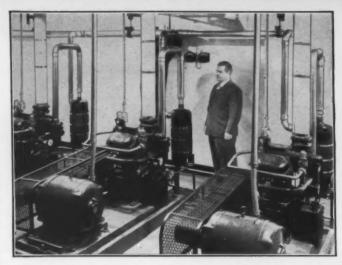
A floor drain which meets these basic requirements can be readily installed with its lead-off piping so that there will be no interference with the subsequent laying of the corkboard or other insulating material,

Before the last layer of insulation is applied to the floor, the drain and piping are installed. With the plumbing in place, the last layer of insulation is brought up to a snug fit underneath the pipeline running across the floor from the drain. After the insulation is fitted around the drain and sealed in place with asphalt, the concrete wearing floor is poured flush with the grating of the drain.

Generally, the concrete wearing floor is pitched about 1 inch in every 10 feet, towards the drain. A 3-inch thickness of wearing floor at the low point is recommended.

Large cooler rooms may require

Continued on page 47



This air conditioning installation in Baltimore's radio station WBAL won the Craftsmanship Award from the city's Building Congress and Exchange for its mechanical excellence. The Paul J. Vincent Co. was responsible for the installation.

Blue Ribbon Winner

THE super-modern new building of broadcasting station WBAL in Baltimore, Md., is air conditioned with a system which won the Building Trades Award for the Paul J. Vincent Co., which was responsible for the installation.

The structure is 116 feet long, 89 feet wide and 44 feet high; it comprises three floors and a basement. The entrance, corridors, general offices and executive offices are on the first floor. Seven studios are distributed among the floors above. The average number of occupants totals 400 people.

The Vincent Co. won the Craftsmanship Award from the Building Congress and Exchange of Baltimore because of the mechanical perfection of the over-all job, which includes a complete ventilating, heating, and air conditioning system.

Temperature and moisture conditions maintained inside the building average 76 F dry bulb and 50% relative humidity. Conditions in each studio are controlled by re-heaters placed in the ducts which supply air to the room. This prevents overheating or undercooling in any portion of the building.

These spaces are divided among five studios, one audition room and the master control room. Each studio has its own system, with the necessary heating coils, cooling coils, fan, and acoustically treated duct system. The other parts of the building are supplied by a separate hookup.

The refrigerating system uses Freon-12 under direct expansion. The three Frick "Eclipse" compressors, each of which has four cylinders, are driven by 30hp Century motors of the double-squirrel-cage type. The six fan units, of Clarage make, have a total capacity of 22,000 c.f.m. Johnson Service controls are employed.

Station WBAL is the largest in Maryland and furnishes both radio and television broadcasts.

CONTRACTORS News • Activities • Plans

Move to Restrict Self-Service Meat Sales is Thwarted

A RESTRICTION on the sale of frozen poultry, fish, and meat products from self-service frozen food cabinets in San Francisco was nipped by prompt action on the part of representatives of grocers, the frozen foods industry, and the Refrigeration Contractors Association of Northern California.

Removal of the restriction "should result in a wider use of refrigeration facilties" in the opinion of Z. E. Jones, executive vice president of the

contractor group.

The restriction was in the form of a 1932 city ordinance forbidding the sale of frozen poultry, fish and meat products from self-service cabinets before 8 a.m. and after 6 p.m. on weekdays and on Sundays and holidays. Strict enforcement of the ordinance had been sought by the butchers' union, acting through the district attorney and the police department.

Would Restrict Sales

"This organization, according to their testimony, wanted to restrict the hours of sale to conform to the hours worked by their members," Jones said in a bulletin to contractor association firms. "They also wanted to restrict the sale of these frozen products to establishments where union meat cutters are employed."

Four grocery stores filed suit against the mayor, members of the board of supervisors, the district attorney, and the chief of police, asking that these officials be enjoined from enforcing the ordinance. A temporary injunction was granted, but the date set for argument was postponed pending action by the board of supervisors on a proposed amendment to lift the restriction.

The matter was first heard before the board's health and welfare committee, participants including representatives of the San Francisco Retail Grocers' Association, the frozen food

industry, the butchers' union, and others. It was next referred to the board to sit as a committee of the whole at a public hearing. After the hearing the supervisors voted unanimously to remove the restriction by amendment.

The action was taken, Jones said, "on advice of the city attorney and over strong protests of representatives of the butchers' union". Final passage was scheduled for June 20.

Not Playing Favorites

Supervisor George J. Christopher, chairman of the health and welfare committee, in moving the passage of the proposed amendment said that in his opinion the supervisors should not undertake to legislate in favor of one group as against another, especially where health and safety were not involved. He said they should enact no ordinance that would hinder competition or free enterprise or that would restrict or restrain trade. The director of public health had insisted there was no health problem involved in the controversy.

The contractors' association was represented at the hearings by its legislative committee, of which J. A. Scatena is chairman. The committee supplied testimony, technical data, and other information used as rebuttal arguments against some of the claims of the butchers' union.

Jones noted that "our contributions had to do with the construction, operation, safe temperatures and temperature control systems, etc. of the several standard makes of modern self-service frozen food cabinets furnished by our industry."

The matter of restrictions on the sale of frozen foods is now before public officials of several other communities, such as Oakland, Berkeley, Marion County, and Los Angeles, "and will doubtless come up in other sections of the country where like conditions prevail," Jones said.

NEW SERVICE PAY SCALE IN PITTSBURGH

Details of the new agreement between the Refrigeration and Air Conditioning Contractors Association of Pittsburgh and Local No. 449 of the United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry, reveal a sliding scale of wages, depending upon type of work done and years in the trade.

The rate for "B" journeymen for installation and servicing of light commercial refrigeration and air conditioning is set at \$2.12½ per hour.

The handling, installation and servicing of window ventilating units, hermetically sealed domestic refrigeration units, and household appliances, performed by "C" journeymen, is to be paid at the following rates:

First year—65% of the domestic "B" journeyman's wage rate.

Second year—75% of the domestic "B" journeyman's wage rate.

Third year—85% of the domestic "B" journeyman's wage rate.

Fourth (and final) year—Domestic "B" journeyman's wage rate, or \$2 per hour.

FOUR MORE FIRMS JOIN DETROIT GROUP

Four more companies were admitted to membership in the Refrigeration Contractors Association of Detroit at a recent meeting of that organization. The new members are:

A & B Refrigeration & Oil Burner Service Co. (Arthur Baker); Great Western Refrigeration Sales & Service Co. (Grant G. Cowell); Commercial Installation & Service Co. (Charles Heemstra); and Effective Temperature Control Co. (John M. Winslow).

NEW COOPER PROGRAM BOOSTS DEALER SALES

R. Cooper Jr., Inc., Chicago General Electric commercial refrigeration and air conditioning distributor, has announced that a new distribution policy is now completely in effect. This new policy places the responsibility for sales and service of these products on the shoulders of its dealer

Continued on page 64



WITH SO2 threads in sizes through 1" nominal, Chase Copper Tube Adapters are made of Tellurium Copper and designed for greater strength and resistance to deformation caused by wrench stresses. Tellurium Copper is a special copper alloy developed by Chase that possesses excellent machinability and gives Chase adapters the uniform threads that mean tighter, leakproof joints.

Remember, also, that Chase Copper Refrigerator Tube is extra soft for easier handling, and for faster installations. And that Chase Wrought Copper Fittings are sound and non-porous and made to fit the tube accurately! For better installations call your Chase Distributor today and ask for Chase Copper Refrigerator Tube and Wrought Copper Solder-Joint Fittings,



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HERE'S HOW THEY'RE MADE

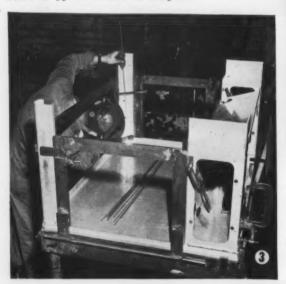
Production Report No. 3

Truck Coolers



Fig. 1—The front frame of the truck conditioning unit is made from four sections of aluminum pressed to the proper shape and clamped into the jig as shown here. The joints are welded by the "Heliarc" torch.

Fig. 2—The completed front frame has been removed from the jig. Note the complete penetration of the welds to the inner surface. Details of jig can be seen in background.



OF COURSE you know how to sell, install, and service all the various types of refrigeration equipment which you handle, or you wouldn't be in business. But do you have any idea how this equipment is made? To enable you to more thoroughly understand these products upon which your business existence depends we are presenting here the third in a series of "photographic production reports".

The picture story presented on these pages shows some of the more important steps in the production of the line of self-contained gasoline powered refrigeration units for truck and trailer use manufactured by U. S. Thermo Control Co., Minneapolis, Minn.

To achieve the combination of large refrigerating capacity, lightest possible weight, and adequate strength, the entire frame is constructed of heavy-gauge aluminum. For strength, rigidity, and appearance, all aluminum parts are welded by the "Heliarc" process. There are 63 linear feet of welding on each unit.



Fig. 3—The top frame is assembled in a separate jig. Note the use of preformed channel sections for corner posts. The front frame shown in Fig. 2 is welded to the top of this assembly.

Fig. 4—A separate gasoline supply enables the unit to operate independently of the truck or cab. All seams of this 200-gal. aluminum gasoline tank are "Heliarc" welded.



Fig. 6—Freon refrigerant is used in the cooling system. The operator is using a "Halide Leak Detector" to test the newly-assembled cooling coil. If a leak is present, the refrigerant gas will be sucked in through the tube in the operator's right hand and impart a characteristic color to the acetylene flame in the detector.





Fig. 5—A wooden frame provides insulation so that there is no metal-to-metal contact between the condenser unit and the evaporator unit. The evaporator unit in back of the operator will be attached to the studs which he is driving.



Fig. 7— The complete unit is given a full operational test, as it comes off the assembly line. In service, the driver merely sets a dial for the desired temperature. A thermostat automatically starts the motor whenever the temperature in the body of the truck or trailer gets above the set value.

COMMERCIAL REPORT COMMERCIAL R

Better Merchandising Methods Aired At Dealer-Manufacturer Meeting

Methods by which the "better merchandising methods" advocated by the National Commercial Refrigerator Sales Association might be augmented and extended among commercial refrigerator dealers were discussed at a meeting of the joint relations committee of NCRSA and Commercial Refrigerator Manufacturers Association in Chicago during the recent convention of National Retail Grocers Association.

Those attending the meeting included C. E. Corbin, of Viking Refrigerators; W. J. Stelpflug, of Hussmann Refrigeration Inc.; and Paul Sullivan, executive secretary of CR-MA and chairman of the meeting, representing equipment manufacturers, and Irving Shell, of Lee-Shell Co., Chicago (Hill); William Bader, of Bader Refrigeration Co., Tulsa, Okla. (Hussmann); and Russ Maintain, of Maintain Store Equipment Co., Boston, in an ex-officio capacity as president of NCRSA.

See Industry Benefits

Consensus of manufacturer-members of the committee was that the dealer sales association has definitely been beneficial to the commercial refrigerator industry. Manufacturers reported marked improvement among their dealers' methods of doing business since the association has been in existence.

All of those who were present at the meeting were in agreement that the fringe type of commercial refrigerator dealer, variously known as a "curbstone operator" or as a "war baby" dealer, was rapidly being eliminated from the field by the merchandising and aggressiveness of the better type of retailers. All factors in the field, it was agreed, will benefit by the elimination of the fringe type

of operator, whose primary interest was in making a "quick dollar" and not in providing the best possible service to the customer or the most aggressive representation to the manufacturer.

Although the association has come a long way in its efforts to improve merchandising conditions in its segment of the industry, committee members attending the meeting pointed out that this task is far from done—that, in fact, it must be a continuing activity if it is to produce longrange results. A lengthy discussion was held on various methods that might be undertaken to further educate dealers to do a better job for their customers, the manufacturers, and themselves.

Boost Local Meetings

As one factor in this broad overall program, member-manufacturers agreed to furnish any number of speakers from among their organizations that dealer local groups might want for panel discussions, sales clinics, and similar activities at the local association level. Requests for speakers will be cleared through national association headquarters.

Another point brought out at the meeting was the necessity for as wide as possible an interest on the part of equipment manufacturers in NCRS-A's activities. Many manufacturers, it was the opinion of those at the meeting, would like to join NCRSA as associate members if they were assured of a welcome. To facilitate matters towards this end, it was planned to have Sales Association member firms ask the companies they represent to join the group as associate members and assist their retailers in this way in their efforts to improve merchandising conditions in the field. HERE'S a sales lesson in capsule form for commercial refrigeration dealers.

In a recent story on the drouth and heat wave in the New York City area, the New York Times reported:

"Edward A. Hausman, executive secretary of the All-Boro Retail Fruit Association, reported that \$2,000,000 worth of fruits and vegetables had spoiled because of the heat in the last two weeks on retail green-grocer stands in New York City. He based his estimate on the loss suffered by his group's 1,500 members, whom, he said, handle about half of the city's business in that field."

Refrigeration men should find a statement like this of great help in promoting their product.

EX-HUSSMANN AUDITOR JOINS ATLANTA FIRM

Robert Mattingly, formerly field auditor of Hussmann Refrigeration Co., has joined Refrigeration Appliances, Inc., Atlanta distributor of Hussmann and Frick refrigeration equipment, as business manager.

Gordon L. McWilliams, president of the firm, has announced three other personnel changes:

H. B. "Red" Tullis has been placed in charge of sales and installation of Bullman all-steel store fixtures, for which the company recently became distributor.

H. G. Vaughn, former sales manager of Public Service Co., Talladega, Ala., has been named a field representative contacting dealers.

Jack Otte has been placed in charge of the northeast Atlanta section for the company.

COMMERCIAL SELLING ACCENTED BY FRIGIDAIRE

A series of conference-type sales meetings in 43 districts throughout the country have been effectively utilized by Frigidaire as a midsummer stimulant for its commercial refrigeration and air conditioning business.

A special factory group, composed of five commercial sales heads from Dayton, conducted a series of one-day meetings, starting July 6. The conference theme was hinged around "back to canvassing" to promote more sales. Following one-day sessions with district heads, the con-

ABOUT People

David W. Hoppock has been appointed Product Manager of commer-



cial refrigeration for Carrier Corp. and will head up an intensified marketing program in this field, it was announced by C. U. Spriggs, assistant general sales manager.

This move is in line with Car-

rier's plans for expanding its commercial refrigeration activities to keep pace with continuing growth in the air conditioning end of the business, Spriggs said.

Hoppock specialized in market research for Carrier and in recent months has been assistant manager of self-contained equipment.

John L. Roth has been appointed to the newly created post of sales



manager of the parts sales and product service section of the General Electric Co.'s air conditioning department.

Roth will be responsible for the sale of commercial refrigera-

tion condensing units of 5 hp and under to distributors and to recently appointed parts depots, as for the sale of all renewal parts. General Electric has recently set up approximately 50 such parts depots throughout the country to promote the sale of condensing units and to facilitate the distribution of renewal parts. These depots will serve fixture and equipment manufacturers, wholesalers, retailers, and service firms. New and replacement condensing units as well as parts will now be available from these outlets.

Prior to his new position, Roth was assistant to the sales manager of the refrigeration machine division. In 1947 he was in charge of commercial sales activities of the refrigeration machine division, Fort Wayne, Ind.

Lynch Corp.'s Par Compressor Div., Toledo, Ohio, announces the ad-



dition of R. C. Warneke as chief refrigeration and air compressor engineer for the Defiance, O hio plant, where Par air compressors and condensing units are manufactured.

Warneke, a graduate of the University of Minnesota, was formerly connected with General Electric Co. for nearly 20 years. In this time he worked primarily with the design, development and testing of commercial refrigeration units, from 1/6 hp to 50 hp. He secured several patents on refrigeration improvements for General Electric.

Cutler-Hammer, Inc., Milwaukee, announces the appointment of W. R.



Reinhold as manager of refrigeration sales to succeed R. M. Van Vleet, who retired recently after forty-five years of service with the company.

Reinhold graduated from the

University of Illinois in 1931 with a degree in mechanical engineering. He joined Cutler-Hammer in 1933 and after working briefly in various company departments entered the sales

department, where he became assistant manager of refrigeration sales in 1944. He is a member of both the Refrigeration Equipment Manufacturers Association and the National Electrical Manufacturers Association.

John L. Zant and A. E. (Bill) Cadwell have been appointed field representatives of Copeland Refrigeration Corp., Sidney, Ohio.

Zant, who for the past year was





Zant

Cadwell

associated with McIntyre Sales Engineering Co., Los Angeles, will represent Copeland in California, Arizona, Nevada and Utah. A graduate of Michigan State in mechanical engineering, he was with Kelvinator and later with Universal Cooler, going to California in 1945 as west coast representative for the latter company. He is a registered professional engineer and a member of ASRE and NSPE.

Cadwell has had 20 years' experience in refrigeration. He was with Kelvinator from 1928 to 1936 as a retail commercial salesman and later as commercial sales manager of the Kelvinator New York City branch; from 1936 until he joined Copeland he was with Universal Cooler as sales engineer, service and application engineering supervisor and special representative. A member of ASRE, he served on the refrigeration standards committee during the last war. He will represent Copeland in the lower Michigan peninsula.

Walter A. Honeychurch has been named general sales manager of Universal Cooler Co. of Canada, Ltd., Brantford, Ont. Honeychurch has had 25 years' experience in refrigeration, and prior to joining Universal Cooler was assistant sales manager of Continued on page 69

DISPLAY'S



Not the Cozy Corner Cafe, but rather one of the realistic displays which comprise the huge third floor merchandising area maintained by the Arthur F. Schultz Co. in Erie, Pa. Drapes, wall murals, liquor bottles and glasses provide a natural setting for the bar fixtures on display.

THIS is a permanent display you are invited to come in and look around anytime."

If it weren't for signs like this conspicuously posted around the third floor of the Arthur F. Schultz Co. in Erie, Pa., it would be easy to imagine that you were wandering through a modern shopping center, complete with food market, restaurant, drug store, and tavern, rather than among the merchandising displays of one of the city's largest dealers in commercial refrigeration equipment.

So realistic are these displays that the tavern or cocktail lounge, for instance, is completely equipped even down to a television set, a typical array of liquor bottles and glases, and a few dummy Martinis (even the olives are plastic!) on the bar.

This unusual type of equipment display, integrated by application rather than by product, is strictly a postwar development with the Schultz organization. Prior to the war the company's product displays followed the orthodox pattern, with a group of reach-in cabinets here, some bottled beverage coolers there, and perhaps a few meat cases or bar fixtures somewhere else.

During the war the company main-

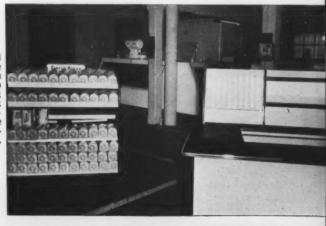
tained no displays at all, to speak of, as its present permanent quarters were commandeered by the Army Air Forces for use as a supply depot.

With the end of the war, however, young Robert C. Schultz, son of the company's founder, came out of the service to take over as manager of the firm's commercial sales division. One of the first things Bob Schultz set about to discover was just what type of displays his customers and prospects wanted. As long as these displays were going to have to be built up from scratch anyway, he reasoned, they might as well be built up right.

The almost universal answer which he received from those customers he queried was: "We want to be able to see the equipment as it actually will look in our business."

On this basis, then, the Schultz firm began to build up a whole new series of displays keyed to the operations of each of the company's lead-

The well-stocked bread rack and the checkout counter in the foreground help make food market operators feel right at home in this elaborate and lifelike display of refrigerated store fixtures.



AUGUST, 1949 . COMMERCIAL REFRIGERATION

THE THING!

More than half of this dealer's sales of commercial refrigeration equipment are completed amid the firm's unique merchandising displays which are effectively calculated to show the prospect just how any particular unit will look in his own place of business

ing groups of commercial customers. His initial experiments were centered around the tavern and soda fountain displays, but the self-service food market was the first of the permanent displays to be built up to its present stage of completeness.

As it is now constituted, the grocery store and meat market setup consists primarily of Tyler equipment, including a 6 x 8-foot walk-in cooler, a self-service vegetable case, a fish merchandising case, a self-service frozen food case, a delicatessen case, a triple-deck self-service dairy case, and two reach-in refrigerators, plus all the usual accessories such as counters, shelving, scales, coffee grinders, cash registers, etc. to add the final realistic touch.

The tavern display, as indicated previously, is so natural in appearance that you can hardly resist calling your order to the non-existent bartender. Various combinations of front bar and back bar arrangements are rotated in this display in order to cater to the tastes of a maximum number of customers, with always at least one of these two units being of the refrigerated variety and fitted with some sort of a beer cooling system.

Leather upholstered booths and wall benches fringe the attractively decorated room, with tables and chairs filling the balance of the floor area. One wall is completely covered by a mural painting, while traverse drapes and potted wall plants round out the plush decor.

Entering off this taproom setup is a complete restaurant kitchen display, featuring a sizeable reach-in refrigerator for food storage purposes and a full complement of commercial cooking equipment.

To effectively display and merchandise the Leitner line of food prepara-



All that's missing from this realistic display of lunch counter equipment is the raucous call of a short-order cook and the fragrance of frying onions, and these minor deficiencies don't keep it from being a highly effective selling setup.



One of the Schultz firm's commercial refrigeration salesmen stands in a corner of the company's model grocery store. The triple-deck delicatessen case, frozen food cases, and the ice cream freezer testify to the completeness of this well integrated merchandising display.

tion and serving equipment which it handles, the Schultz organization has set up a completely self-contained short order restaurant, with a full length lunch counter flanked by a row of conventional booths and table and chair groupings. Ranged into a close-coupled display behind this lunch counter are a soda fountain, complete with an ice cream storage and dispensing unit, a refrigerated salad table, sink, frozen food storage cabinet, steam table, coffee urn, and a reach-in refrigerator, all constructed of stainless steel.

The drug store display combines a Stanley Knight soda fountain, salad table, and luncheonette ensemble with a complete lineup of modern store fixtures and showcases. Here, too, the realistic touch is provided by having several items of typical drug store merchandise displayed on the shelves and in the cases, and by keeping the magazine rack full of current issues of popular periodicals.

Brands Are Segregated

To make each of these displays as attractive as possible, and to lend the greatest possible amount of authenticity to the surroundings, the Schultz firm enlisted the aid of professional interior decorators in planning the general decor and in specifying such final touches as the color scheme and styling of draperies, floor coverings, and wall decorations.

In their overall planning of this display area, the Schultz management cleverly contrived to keep the products of any particular manufacturer concentrated in a single display setup. For instance, the food market display is virtually an all-Tyler affair, the luncheonette unit is comprised solely of Leitner equipment, Stanley-Knight units are restricted to the drug store display, and so on. Thus, any time a manufacturer's representative may move in to make a concentrated pitch on his company's products he can do so without moving from one location to another, and without being troubled by the unconscious interference of competing products.

While these displays obviously form an effective year-around merchandising medium, they become particularly potent during the annual "Spring Show and Open House" which the Schultz company stages each year. During these sessions, which usually last three days and

during which more than 2000 customers and prospects throng the third floor of the Schultz building, virtually all of the equipment in these displays is placed in actual operation.

In the food market display in particular, a crowning touch of realism is added through the cooperation of food suppliers who tie in to the show by stocking the shelves and the fixtures with actual samples of their products. In recognition of this cooperation they are permitted to have their own representatives on hand to contact the market owners.

Every effort has been exerted to make these displays as effective as possible, and no opportunity to continually utilize them as active selling tools is overlooked.

A special 8-page promotional brochure, illustrating these displays, itemizing the equipment shown, and emphasizing the importance and convenience of these life-like setups to the merchant who is planning on the purchase of new equipment, is sent out about four times a year to the company's complete list of more than 7000 commercial accounts. The same folder actually is sent on each of these mailings, but each time it is printed on a different colored stock to give it a "new look".

Schultz's store planning department, too, ties in effectively with these merchandising displays. After the prospect has looked over these displays to see how the equipment in

which he is interested looks in his general type of business establishment, then the store layout department goes to work to show him, through the medium of either prospective drawings or tinted photographs of scale model mock-ups, how it will look in his very own place. This sort of power-packed, one-two sales punch usually turns the trick.

Proof of the Pudding

As can readily be seen, the Schultz organization already devotes far more space—and effort—to product display than does the average merchandiser of commercial refrigeration equipment, but it is not content to rest on its accomplishments.

Long range plans call for every inch of the nearly 40,000 sq. ft. of space available on the company's display floor to be converted into this same type of silent but successful selling setup.

Successful, did we say? Well, there's no tangible way in which you can accurately measure by a rod or on a scale just how effective such a method of merchandising really is. But Bob Schultz will tell you that more than half of all the company's sales of commercial equipment, by both inside and outside salesmen, are closed right there on the firm's display floor. And that seems like evidence enough that this type of merchandising really pays off.



REFRIGER Freuz IIIISTRY

MADDEN PRODUCTS NEW INDUSTRY FIRM

The Electrimatic Div. of Simoniz Co. has discontinued the manufacture and sale of Electrimatic fittings, driers, strainers, charging lines and other accessory items effective June 30. As of July 1 this phase of their activities was taken over by the Madden Brass Products Co., 1111 N, Franklin St., Chicago.

The manufacture of automatic control valves (water regulating, solenoid, suction throttling, etc.) is being continued without interruption by the Electrimatic Div., but temporarily, effective July 1, all valve items so listed are being sold through Madden Brass Products Co.

This new organization is under the ownership and personal direction of M. B. Madden, formerly sales manager for the Electrimatic Div. Madden resigned his position as sales manager of Electrimatic on June 30 in order that he might organize this new company. Selected mem-bers of the Electrimatic staff as well as the sales organization are associated with Madden in this new company; consequently there have been no interruptions in the normal course of furnishing Electrimatic valves as well as driers, strainers, fittings and other accessory items.

OPEN-TYPE UNITS DROPPED BY JAHCO

Jack & Heintz Precision Industries, Inc., Cleveland, has discontinued the manufacture and sale of opentype refrigeration condensing units for commercial and industrial applications.

The company said, however, that a sizeable inventory of replacement parts had been set aside "so that the many thousands of Jack & Heintz condensing units now in service can be adequately maintained".

FRIGIDAIRE NOW ON 12TH MILLION



C. E. Wilson (left center), president of General Motors, congratulates Mason M. Roberts, general manager, Frigidaire Div., on the completion of the eleven millionth Frigidaire. Left to right in this group of G-M executives are E. R. Godfrey, vice-president and group executive; William F. Hufstader, vice-president; H. H. Curtice, executive vice-president; R. V. Polen, Frigidaire works manager; O. E. Hunt, executive vice-president; S. M. Schweller, Frigidaire chief engineer; Wilson; Roberts; C. H. Kindl, assistant vice-president; R. E. Hammond, controller; W. H. Norton, assistant group executive; and P. M. Bratten, Frigidaire general sales manager.

KENNARD ADDS TO FIELD STAFF

Kennard Corp., St. Louis manufacturer of heat transfer equipment, has announced appointment of the following field representatives:

Chet Adams Co., Greensboro, N. C.; John J. Barry, Baltimore; M. Blazer & Son, Passaic, N. J.; John R. Elistrom, Philadelphia; Don E. Hawk Associates, New York City; Paller Engineering Co., Indianapolis; J. Fuller Stafford and C. L. Benson Associates, St. Paul, Minn.; and R. F. Zimmerman & Co., Shreveport, La.

RECOLD LICENSES WORTHINGTON CORP.

Hy Jarvis, vice-president and general manager of Refrigeration Engineering, Inc., Los Angeles, announces that a license has been issued by their organization to the Worthington Pump and Machinery Corp. of Harrison, N. J., to use the water defrost method in refrigeration production.

PEERLESS ON VACATION FROM AUG. 20 TO SEPT. 6

Peerless of America, Inc., Chicago, has announced that its entire plant, including both shipping and receiving departments, will be closed for vacations from Aug. 20 to Sept. 6. Both customers and suppliers are asked to keep these dates in mind, and customers are requested to anticipate their requirements in advance of the vacation period.

SALES KEEP AMANA WORKERS ON JOB

With sales of its freezers at an "all-time" high, the refrigeration division of the Amana Society, Amana, Iowa, has had to forego the annual vacation shutdown usually scheduled for July in order to catch up with the increased demand, according to George C. Foerstner, general manager of the division.

Day shift employees are now working a six-day week, instead of five, Foerstner said.

OVER 80% OF SHOW SPACE GONE

Headquarters of the All-Industry Show committee has announced that more than 80% of the exhibit space for the 6th All-Industry Refrigeration and Air Conditioning Exposition, set for Atlantic City on Nov. 14 to 18, inclusive, has been sold. Nearly 200 exhibitors have contracted for space in the Show, which will cover approximately 200,000 sq. ft. of floor space.

Present estimates are that more than 5,000 pieces of equipment will be on display, with a total value of displays and costs of company participation bordering the \$3 million mark.

Hotel headquarters for the 1949 Show are:

REMA, Hotel Traymore; exhibitors, Hotel Traymore; REWA, Hotel Claridge; RSES and RACCA, Hotel Ambassador; NCRSA, Hotel Ambassador; NEMA and ACRMA, Chalfonte-Hadden Hall.

Show hours have been changed slightly. The Show will be open to visitors during the following hours, with the first day limited to service engineers and contractors:

1 p. m. to 6 p. m. Thurs., Nov. 17...... 10 a. m. to 6 p. m. Fri., Nov. 18.....

MAINTENANCE SHOW TO COVER COOLING

10 a. m. to 4 p. m.

Air conditioning equipment will be included in the exhibits and conference subjects to be covered in the first Plant Maintenance Show to be held in the Cleveland Public Auditorium from Jan. 16 to 19, 1950. Concurrently with the show, a four-day conference will be held on plant maintenance methods.

KRAMER OFFERS PRICE PROTECTION

Because "commercial refrigerating equipment at present prices is one of the few genuine bargains offered for capital purchases in the U. S.", Kramer Trenton Co., Trenton, N. J., is offering to guarantee against price reductions of any of its refrigeration coll items listed in its published literature.

Announcement of the price protection plan was made in a letter sent out recently to the company's stocking wholesalers. As outlined in the letter, the plan follows:

"Should there be any price reduction on our catalog items within 60 days from date of our invoices we will issue a credit memo to you for the difference between the invoice price and the reduced price. This is to apply only to the merchandise invoiced by us June 8 or later and left unsold in your stock.

"We propose to keep this understanding in effect until Jan. 1, 1950, at which time we hope that any psychological fears due to market fluctuations will have subsided.

"Here is the way we will handle it:

"1. At present our general practice is to mark on each crate our invoice number. This will be continued. Should there be any price reduction on the merchandise you intend to buy for stock the date of purchase will be easily identifiable by reference to the invoice numbers on the crates.

"2. It is understood that the merchandise to be purchased under this arrangement is not to be removed from the crates so long as they are in your warehouse."

Wholesalers were urged by Israel Kramer of the company to instruct their sales forces to carry this message to their customers, to dispel any hesitancy on their part to make purchases because of fear of eventual price reductions.

"Both the high side and the low side in the commercial refrigeration industry today are the best bargains offered in the United States for any capital goods purchase," Kramer said.

"PACKAGED" UNITS FIT RIGHT IN



The ease with which a packaged air conditioner may become an integral part of a decorative scheme is exemplified in the accompanying photograph. This Chrysler Airtemp packaged unit is installed in the Town Club, Jamestown, New York. The installation was made by Sprinchorn & Co., Chrysler Airtemp dealer in that city.

WADDELL NAMED NIAA OFFICER

Milford R. Waddell, industrial and public relations director for Black, Sivalls & Bryson, Inc., Kansas City, was elected a vice president of National Industrial Advertisers Association at the recent annual convention of the organization in Buffalo. He also was appointed membership chairman for the coming year.

As vice president, Waddell will represent the central middle west on the NIAA executive board. He was a charter member and first president of the Kansas City chapter of NIAA, organized in 1948.

MEYERS HEADS COAST MFR. GROUP

Clyde S. Meyers, manager of industrial relations for Weber Showcase and Fixture Co., Los Angeles, was elected president of the Refrigeration Manufacturers Association of Southern California, Inc., at the last meeting of this trade group. Meyers will serve until mid-1950 and succeeds B.

R. Glazer of the Super-Cold Corp., Los Angeles, who has headed this association for the past two years.

Other officers who will serve with Meyers are Rex L. Loop of Ward Refrigerator & Mfg. Co., Los Angeles, vice president, and Berger H. Bakke of Coldew Corp., South Gate, secretary-treasurer.

Directors for the coming year, in addition to the officers will be Glazer, and Lee A. Prather of Refrigerator Manufactures, Inc., Hawthorne, Calif. Neal S. Templin remains executive secretary of the association.

HUMPHREYS NAMED BAKER DISTRIBUTOR

Baker Refrigeration Corp. has announced the appointment of H. E. Humphreys Co., Concord, N. H., as distributor of its Freon products for the state of New Hampshire.

The Humphreys firm has been distributor of Tyler commercial refrigeration equipment for the past 15 years, and has state-wide dealer coverage on home freezers.

DAVISON MOVES BALTIMORE OFFICES

Davison Chemical Corp. has moved its general offices and headquarters to the newly renovated and air conditioned Davison Chemical Bldg., Charles and Fayette Sts., Baltimore 1, Md. The company's postal address, however, remains as Davison Chemical Corp., Baltimore 3.

The new building was purchased by Davison more than three years ago, and could not be occupied until now because of shortages of materials required to rehabilitate it. Erected in 1898, the building has 12 floors, of which the company occupies six. Total floor area of the building is 50,000 sq. ft. Davison is a leading producer of silica gel for the refrigeration field.

BENUA HEADS REMA WATER COOLER MFRS.

A. R. Benua, Ebco Mfg. Co., was elected chairman of the Drinking Water Cooler Manufacturers Association at the group's recent meeting in Chicago.

E. R. Walker, Fedders-Quigan Corp., was named vice chairman, and J. F. King, Halsey W. Taylor Co., treasurer.

The association voted to cooperate with RSES in the publication of a Master Service Manual.

A task committee comprised of E. W. Benson, Frigidaire (chairman); F. B. Griffith, Day & Night; R. H. Tull, Westinghouse; and J. W. Thomas, Brunner, was named to consider the proposed requirements of the city of Los Angeles regarding drinking water coolers and drinking fountains and to be prepared to suggest such modifications in the proposed specifications as may be necessary from a practical manufacturing standpoint.

NEW PHILCO OUTLET IN PITTSBURGH

Appointment of the James E. Miller Co., Inc., Pittsburgh, Pa., as distributors of Philco products in the Pittsburgh area is announced by John M. Otter, vice president and general manager of sales, Philco Corp.

ACRMA CITES ADVANCE, VIEWS OPPORTUNITIES

Substantial progress in the many fields in which the association is active was revealed by the Air Conditioning and Refrigerating Machinery Association during its three-day annual meeting at Hot Springs, Va.

At the same time, spokesmen for the group warned that the coming year, although replete with opportunity, would demand the utmost in capable management and require the exercising of every possible economy all along the production and distribution line.

Association officers elected for the year 1949-1950 were:

President, W. H. Aubrey, Frick Co., Inc.; first vice president, A. P. Shanklin, Carrier Corp.; second vice president, Harold F. Smiddy, General Electric Co.; treasurer, G. A. Heuser, Henry Vogt Machine Co.; chairman, executive committee, George S. Jones, Servel, Inc.

In addition to these officers, the following were elected members of the ACRMA Board of Directors:

A. J. Bronold, Westinghouse Electric Corp.; Maynard Ford, Parks-Cramer Co.; S. E. Lauer, York Corp.; Edward R. Legg, Refrigeration Corp. of America.

H. F. Lehman, Frigidaire Div., General Motors Corp.; W. C. Newberg, Airtemp Div., Chrysler Corp.; A. B. Newton, Acme Industries, Inc.; T. S. Pendergast, Baker Refrigeration Corp.

NEW ACRMA OFFICERS



New officers of the Air Conditioning and Refrigerating Machinery Association, eelcted at the organization's annual meeting, pose for their first group portrait. Left to right are: H. F. Smiddy, second vice-president; G. A. Heuser, treasurer; A. P. Shanklin, first vice-president; W. H. Aubrey, president; George S. Jones, Jr., past president and chairman of the executive committee.

D. Robertson, Universal Cooler Div., Newport Steel Corp.; A. O. Vogel, Vilter Mfg. Co.; Edmund R. Walker, Fedders-Quigan Corp.; G. E. Wallis, Creamery Package Mfg. Co.; C. E. Wilson, Worthington Pump & Machinery Corp.

Reports to the meeting especially noted the part played by the association in the revision of the Safety Code for Mechanical Refrigeration and in the development of standards for both the industry's products and their application.

Seven new or revised standards were added to ACRMA accomplishments in the field of engineering. These included water-cooling towers for use with refrigerating equipment, room air conditioners, self-contained air conditioners, condensing units of 20-hp ad smaller, high speed ammonia compressors, refrigeration heat transfer, and compression refrigeration systems.

Considerable progress

also was reported in the development of the association's statistical program.

Speaking before the organization's members, retiring president Jones declared: "The great market for the products of our industry is still waiting for us, but we must re-learn the lessons of the 1930's and go to the market prepared to sell instead of waiting for the market to come to us as it has during the past few years."

New President Aubrey echoed these sentiments by saying: "The refrigeration and air conditioning industry, with products so essential to the national economy, is at the threshold of the greatest period of growth in its history. But the next year or two will demand many readjustments in both individual and corporate planning and practice if advantage is to be taken of the opportunity. The post-war years have left some of us with too much fat in the wrong places."

ARTCRAFT NAMED

"GR" DISTRIBUTOR

Appointment of the Artcraft Store Equipment Co., 714 Delaware Ave., Kansas City, as distributor for the General Refrigeration Div. of Yates-American Machine Co. was recently announced by K. C. Goodrich, sales manager of the Beloit. Wis., manufacturer.

Frank Papin and James School are partners in the Arteraft Co., which manufactures specialized restaurant and tavern refrigerating equipment.

ROBERTS HEADS FREEZER GROUP

Howard R. Roberts, Whiting Corp., Chicago, was elected chairman of the Food Freezer Section of Refrigeration Equipment Manufacturers Association at its recent meeting in Washington, D. C.

Other officers elected are J. W. Krall, Tyler Fixture Corp., vice chairman, and C. H. Beane, Brewer-Titchener Corp., secretary. They will hold office until May 1, 1950.

Projects slated for early development include a promotional campaign on food freezers. This will involve the preparation of a sound slide film in color which will be available for use in all schools, colleges, universities and other institutions having courses in home economics. The film will also be shown before women's clubs, church groups, service clubs, Parent-Teacher Associations and similar organizations for the purpose of stimulating interest in the convenience and economy of owning a modern food freezer.

A speakers bureau is also planned by means of which organizations, groups, service clubs, etc., may arrange for speakers on various phases of the food freezer subject through the Washington headquarters of REMA.

Desirability of preparing standards covering the manufacture of food freezers for review and publication by REMA was discussed. It was proposed that such a set of approved standards be adopted and that a standard label also be developed, the label to be used on food freezers of their manufacture by all members of the section, and publicized in their advertising.

W. L. Currie, chief engineer of Victor Products Co., was appointed as chairman of an engineering standards committee with authority to select four other members from the Food Freezer Section of REMA to study existing standards on food freezers, including those developed by NEMA and ASA, and to prepare a basic standard for consideration and adoption by the section.

COOL CAFETERIA

Summer school students at the University of Florida, Gainesville, finally had their last alibi for poor grades-hot weathertaken away recently when W. P. Long, director of the food service department at the university, opened the east wing of the new airconditioned cafeteria for use as a study hall. Plans were to have the "study hall" open for use from 8 p. m. to midnight. The wing will seat 400 persons.

NFFLA CONVENTION IS AUGUST 28-31

Tenth annual convention of National Frozen Food Locker Association will be held Aug. 28 to 31 in the Stevens hotel, Chicago. A full program of exhibits, clinics and demonstrations has been planned, with subjects to be covered including home units and the locker plant, advertising, selling frozen food products, packaging and processing frozen fruits and vegetables, and operating costs and income.



Chicago Metal Hose Corporation has combined over 47 years manufacturing experience with modern mass production facilities to produce a really dependable, high quality refrigerant service hose that offers everything you want at a minimum cost—

- Liquid-tight flexible steel liner
- · Non-kinking non-collapsible
- · Withstands repeated flexing
- · Great torque resistance

CMH Refrigerant Service Hose is made in convenient standard lengths with a wide choice of standard couplings. Available from your refrigeration supply jobber or_if he does not stock it, ask him to order for you. Write for complete details.

CHECK THIS CONSTRUCTION



DAVIDSON AWARDED \$12,500 IN SUIT FOR DEFAMATION OF CHARACTER

A jury in the Circuit Court of the City of St. Louis has awarded B. R. "Dave" Davidson, head of Thermorite Corp., the sum of \$12,500 for damages and losses he sustained through being falsely accused of obtaining money under false pretenses.

The court's action, taken in a suit that Davidson had filed against Ray Pennington and Joel Montgomery charging defamation of character, was the final step in clearing Davidson of any connection with an alleged war surplus swindle that originally came to light more than two years ago.

According to testimony in the various court actions, what happened in this situation was as follows:

During 1946, when materials and equipment were very difficult to obtain, many firms and individuals seeking equipment to buy—and many who had surplus equipment to sell—contacted Davidson, who was then with Hussmann Refrigeration, Inc., and who had been active in the program of building refrigeration equipment for the armed forces.

These inquiries involved mostly government surplus equipment. In many instances Davidson was able to put persons in touch with one another who eventually worked out the sale of this equipment.

In two instances Pennington and Montgomery were referred to the McBee Air Conditioning Company, who supposedly had available some surplus equipment. Pennington and Montgomery independently made arrangements to buy

some of this equipment and paid a total of \$34,000 to the McBee company. That firm failed to deliver the equipment to Pennington and Montgomery, and shortly thereafter was adjudged bankrupt.

Because of the apparent irresponsibility of Messrs. McQueary and Black, who operated the McBee company, and because Davidson had referred these men to the McBee company, Pennington and Montgomery complained to the Circuit Attorney and based on their representations the grand jury in December, 1947, issued an indictment against McQueary, Black and Davidson, charging that these men obtained money under false pretenses.

At the time the indictment was issued, Davidson issued a specific denial that he had had any part in the alleged transactions, or that he had taken any part in consummating the deal.

In the trial in criminal court, which followed in the summer of 1948, Davidson was acquitted on the grounds that the facts were not properly presented to the grand jury and that Davidson had no connection whatsoever with the deal between Pennington, Montgomery and McBee Air Conditioning, and had not received any of the money which had been paid to the McBee company.

Davidson thereupon filed a civil suit against Pennington and Montgomery for defamation of character. This resulted in the jury's decision that Montgomery and Pennington must pay to Davidson \$10,000 actual damage and \$2,500 punitive damages.

OUTLETS NAMED FOR DOREX UNITS

W. B. Connor Engineering Corp., New York, manufacturer of "Dorex" activated carbon refrigerated atmosphere control equipment, announce the following recent distributor appointments for its apple and pear storage units: Richard D. Lyman, Albion, N. Y., western and northern New York; Jersey Fruit Products Co-op Association.

Inc., Freehold, N. J., New Jersey and Delaware; Hill Top Orchards and Nurseries, Hartford, Mich., Michigan and Northern Indiana; Shantz Orchards, Orefield, Pa., eastern border counties of Pennsylvania; The Growers and Producers Exchange, Inc., Roanoke, Va., southern Virginia and southern West Virginia; Sho-Off Orchards, Peoria, Ill., northern Illinois and Wisconsin.

MORE THAN SKIN DEEP . . .

Continued from page 29

customer is thoroughly satisfied. This personal attention from "the bosses" themselves, they have found, tends to flatter the customer and really sell him on the fact that here is a firm which is really looking out after his own best interests.

A final important factor in creating this favorable impression in the mind of the customer is Hosler & Pearson's detailed billing procedure. Equipment used on each job is carefully listed—item by item—on the invoice, so that the customer, if he so desires, can actually count the number of valves, thermostats, or other accessories on his system and check these items against the invoice.

"In this way," Hosler explains, "the customer can see exactly what he is getting, and can clearly understand that there is no possibility of the invoice being padded." These invoices, incidentally, are prepared on a high grade of rag content paper, rather than on the less expensive paper used by many firms, to further heighten this overall impression of a real quality job.

DOWN THE DRAIN . . .

Continued from page 33

more than one drain. Each drain should be spaced to serve every 400 or 500 sq ft of floor area, their exact location being prescribed by the sewer line system.

Most metropolitan communities have strict sanitary codes which forbid the direct connection of cooler room drains to sewer systems. Health authorities have sponsored these regulations to prevent foodstuffs from being contaminated by sewer gases backing up into cold storage rooms. Cooler rooms in these localities must be drained into sewer lines through an open drip drain, located outside the walls of the room.

Generally, rooms and corridors adjacent to cooler rooms are provided with ordinary building floor drains. In old construction, where insulation and wearing floor are built up over an already existing floor, the cooler room drain pipe can often be led off through the wall to drip into an existing building floor drain. In new construction, however, the insulated floor

and uninsulated adjacent rooms or corriders are always constructed flush with one another. In this case, exterior floor drains should be depressed to a sufficient depth to accommodate the drain pipe from the cooler room. The other alternative is to place the drip drain in the ceiling of the room below, if such space is available and is not being used for food storage.

Floor drains are included in the specifications for freezer rooms, when the freezer is designed to also serve as a cooler during certain seasons of the year. Freezer rooms which might subsequently be converted into coolers should also be equipped with floor drains.

Drains for freezer rooms are installed in the same manner as cooler room drains, but they require more care. After a freezer has been cleaned and scrubbed down with water, glycerin should be poured into the drain to clear the trap of water before the room is put under refrigeration again. And, of course, this glycerin must be replaced after every subsequent cleaning of the room.



GOOD FOR ME . . .

Continued from page 31

ing. The apprentice is expected to use his work as a practical training ground, and to increase his technical understanding at night school. The certificate he receives at the end of the course is a recognized passport in Southern California's refrigeration industry.

Today 74 apprentices are in training at Frank Wiggins, instructed by

coordinator Harry Bowe, successor to Jessie Blair who died suddenly last vear.

The training program has upgraded journeymen, put a firm foundation under apprentices, has raised the general standards and efficiency of the entire industry, and has come to be highly rated by the men themselves.

Bob Noll has seen his crusade become reality. He has seen the wages of his men increase in direct proportion to their new-found abilities; he has seen employers enthusiastic over wage boosts, knowing that their men have earned them.

But Bob Noll's apprentice training plan did not interfere with the growth of Commercial Refrigeration Co. In fact, upgrading the industry upgraded his business too, boosting its general efficiency.

In 1945, at war's end, Commercial Refrigeration Co. took over the exclusive York franchise for Los Angeles, Orange, and Ventura counties. with the authorization to install York equipment up to 30 tons. The York franchise quadrupled his business the first year.

Archibald, now on sick leave at his Corona del Mar beachside home.



handled the service end of the business, while Noll concentrated on

purchasing and sales. The company operates a fleet of 19 pick-up trucks, handling 40 to 50 service jobs daily. Service calls are made on a time and material basis. In addition, the company handles 75 yearly maintenance contracts.

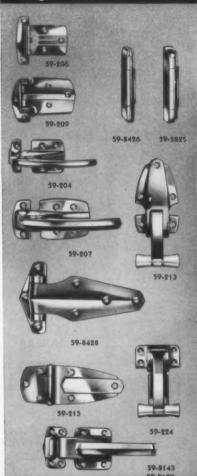
New installations-most of them package units amount to 30 or 40 monthly, and include everything from home coolers to big commercial installations such as locker plants and tuna ships. Since the company took over the York franchise it has installed 2,534 commercial jobs.

Bob Noll's policy that "it's better to hold old customers than to get new ones" seems to be a policy upon which the business has thrived.

Fourteen salesmen bring in most of Commercial Refrigeration's sales. However, repair jobs, are steadily increasing as a source of incomes.

There are two categories of sales-

NATIONAL LOCK...





DESIGNED FOR A VARIETY OF USES

Extensively field-proven on commercial and domestic applications, these matched designs of chromium plated refrigerator hardware consistently "ring the bell" with users. Ideal for Reach-in Cabinets, Display Cases, Back Bars, Florists Boxes, Bottled Beverage Coolers, Draft Beer Equipment, Coin-Operated Refrigerated Dispensing Machines, Milk Coolers, Low Temperature horizontal or vertical Cabinets, Stokers and many other units of refrigeration equipment.

Ask your jobber for complete information and prices.

NATIONAL LOCK COMPANY

men: engineers and packaged goods men. Five graduate sales engineers, all of them mechanical engineers figure new jobs. Packaged units which a year and a half ago made up only half the company's business, now account for two-thirds of it.

Commerical Refrigeration Co.'s headquarters comprises a half block along Los Angeles' busy Olympic boulevard, and stocks a sizeable supply of refrigeration parts. Stockroom head P. J. Crook has geared his part of the business for quick service to the company's 19 installation trucks.

The firm's repair shops are completely up-to-date, with a special painting department and an ingenious three-sided charging board which drains cylinders to vacuum, and saves the company as much as 25 pounds on a 144 pound stock drum.

Bob Noll, reflecting on 1947's peak year and on 1948, which he characterizes as "a good year", disregards to some extent the generally poor first few months of 1949, predicts that "though business in this area is off, we'll equal last year's dollar volume."

Now, with his business grossing a

million dollars annually, NoII has more time to enjoy his Altadena home—and his 50-foot power cruiser anchored at nearby Newport Beach, yachting center of Southern California. Time, too, to enjoy his two granddaughters (one two years old, the other seven months) and to relax with pretty Mrs. NoII. The NoIIs have three children. Their 17-year old son is at New Mexico Military Academy. One daughter is married and the other attends UCLA.

There's no fantasy in Commercial Refrigeration Co.'s success. Just a steady routine of old customers and an equally steady batch of new

Typical of the ingenious spirit which sparks this organization, however, is the fact that when Noll & Archibald couldn't find an ice crusher fast enough to keep pace with the York automatic ice maker, they simply invented one. Called the "Crystal Crusher" and capable of crushing 20 pounds of ice a minute, their patented idea is sold throughout the U.S.

To market the Crystal Crusher nationwide, Noll, Archibald, and the

company's sales manager, Hugh Strange, formed a corporation. More than 500 of these patented crushers have been sold, and this business now has developed into a \$100,000 sideline.

Meanwhile, Los Angeles' refrigeration industry has a trade school all its own. Employers now know what its men can do—and what they can't do, this school teaches them.

Early this year, Bob Noll traveled to Miami to participate in the directors' meeting of the National Association of Refrigeration Contractors. Noll was still crusading in Miami. This time he was planning for apprenticeship training and journeyman upgrading on a national scale. Bob Noll's crusade had reached the national arena.

CUTLER-HAMMER MOVES BOSTON SALES OFFICE

Cutler-Hammer, Inc. of Milwaukee recently announced a change of address for its Boston district sales office. Headed by C. V. Topliffe, the new office is located at 784 Commonwealth Ave., Boston 15.

YOUR BEST BUY IS BY



VIBRATION ELIMINATORS

Wherever you are faced with the problem of piping refrigerant gases and liquids under varying degrees of temperature and vibration, Bendix Seamless Flexible Metal Hose is the perfect answer. Deep parallel corrugations, uniform wall thickness and seamless construction assure greater flexibility longer service life.



Made by Eclipse-Pioneer Division • Bendix Aviation Corporation • Teterboro, N. J.

DISPLAY - RITE SERVE - RITE SELI.



WITH

FREEZ – RITE

The outstanding open display cabinet that sells on sight. Moderate price. Superb quality. Sub xero temperature. Capacity 480 standard packages. Many exclusive features.

Choice distributor territories still available!

BAILEY & PERKINS CO.

2869 East Grand Blvd. DETROIT 2, MICH.

NO Other Line Gives You So Much Satisfaction. Quality, Safety, Economy!





UNDERWRITERS' LABORATORIES on the Complete Line of

RAPID Refillable DEHYDRATORS

(SIZES 5 CU. IN. TO 200 CU. IN.)

QUALITY and SAFETY, requirements of the industry, are assured you by this Underwriters' Laboratories listing. Lower first cost and troublefree operation provide maximum ECONOMY. Insist on RAPID Refillable Dehydrators!

WRITE FOR CATALOG AND PRICES (Give Whalesalers' Name)

DESIGN-ENGINEERED FOR RUGGED SERVICE PRODUCTS CO.

185 N. WABASH AVE., CHICAGO 1, ILL.

TERATUR

The publications listed below are available to readers without charge. Simply list on the postcard in this issue the key numbers of the items you wish to receive. Your requests will be forwarded directly to the companies concerned,

437—Stainless Steel Equipment . . . A 24-page catalog (N-1) just issued by Star Metal Mfg. Co. illustrating and describing the extensive line of stainless steel refrigeration equipment which it makes for the hotel, restaurant, club and institutional fields. Equipment includes reach-ins, ice makers, display units, beverage coolers, chef's refrigerators, bakery cases, salad and sandwich units, etc.

438-Centrifugal Blower . . . A catalog sheet (Form 529) illustrating and describing the new Model 5-30 hy-duty single inlet blower being manufactured by Schwitzer-Cummins Co. Gives ratings, dimensions, and other pertinent data.

439-Hold-Over Plates . . . New 1949 catalog issued by Kold-Hold Mfg. Co. A complete reference guide on standard "Serpentine" plates, truck "hold-over" plates and accessories. Includes simplified formulas with examples for figuring number and size of both types of plate evaporators; lists specific and latent heat loads, air infiltration loads, insulation factors. Data on Kold-Hold's new "Package" truck unit is also included.

440 - Insulation-Resistance Measurement . . . New 4-page bulletin describes and illustrates "Vibrotest" insulation-resistance measuring instruments. Chart of available models makes handy base specification table for all insulationtesting instruments. Available from Associated Research, Inc.

441—Brazing Information . . . A new bulletin (No. 47) just issued by Handy & Harman, explaining how to make copper tanks with the aid of low-temperature brazing alloys. Also contains mention of an available paper covering brazing of beryllium-copper alloys.

442 - Voltage Tester . . . A fourpage folder giving information on the 'Mini-Volt" voltage tester developed by Industrial Devices, Inc. Describes features and lists the uses of this low-cost tool which can be used in checking electrical circuits of refrigeration and air conditioning equipment,

443-Air Conditioning Units . . . Two folders describing and illustrating the lines of "Vikimatic" package store and room air conditioners produced by Viking Mfg. Corp. Store coolers are made in 3, 5, 71/2, 10 and 15 ton capacities, room coolers in 1/2 and 3/4 hp sizes. Sheets give features, specifications, other pertinent data.

444-Leak Detector . . . Literature illustrating and describing the "Test-A-Leak", a tester that can be used for detecting leaks in all types of refrigerating units. Tester, which is about the size of a fountain pen, can be carried in shirt pocket. Folder lists features, price.

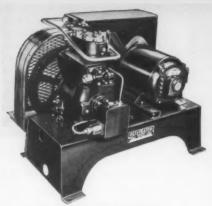
445-Freon Condensers . . . A new catalog (No. 23-B) covering the line of Freon condensers manufactured by Acme Industries, Inc. Illustrates and describes shell and tube and shell and coil units, gives specifications, capacity and engineering data, methods of selection, etc.

446-Condensing Units, Air Conditioners . . . Folders illustrating and describing "Lipman" commercial condensing units for use with Methyl Chloride and Freon-12 from ½ to 15 hp, capacity, 10 hp. ammonia refrigerating machines, and "GR" packaged air conditioners in 3 and 5 ton capacities. Lists construction features, specifications. Available from General Refrigeration Div., Yates-American Machine Co.

447—Expansion Joint Design Guide . . . A 28-page bulletin available from Chicago Metal Hose Corp. designed to assist in the selection and application of expansion joints in piping systems. Use of data contained aids in selection of size and type expansion joint necessary for varying requirements of temperature, pressure, other factors involved in each application.

448-Utility Tester . . . A one-page sheet describing a new voltage tester introduced by General Electronic Distributing Co. Tester can be used on refrigerating and air conditioning units as well as other appliances. Sheet lists features, price, other information.

449-Purger Bulletin . . . A new 8-page bulletin issued by Armstrong Machine Works describing how purgers prevent entry of air and other non-condensables into refrigeration systems; also tells how these non-condensables affect system's operation. Includes illustrated data, specifications and prices, helpful charts and tables.



Kelvinator Open Type Condensing Units (¼ H. P. to 1 H. P.)



Kelvinator Water Coolers (Pressure and Bubbler Types)



Kelvinator Sealed Type Condensing (Units (1/4 H. P. to 1/2 H. P.)

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It's Kelvinator's new catalogue for the quick, easy way to buy refrigeration parts and supplies. Hundreds of items to choose from. Ask for it at your nearest Kelvinator Distributor's or Zone office.



Kelvingtor Silieg Gel Driers





Kelvineter Compressors (1/6 H. P. to 5 H. P.)

DEPEND ON KELVINATOR FOR ALL YOUR REFRIGERATION NEEDS

NE Products

For further information on any of these products, simply list on the postcard provided in this issue the key numbers of the items in which you are in terested. Your requests will be forwarded directly to the companies concerned.

Time Switch • • • • • P-441

Product: 300-M Series of time switches especially designed for automatically defrosting commercial refrigeration systems one or more times daily.



Manufacturer: Paragon Electric Co., Two Rivers, Wis.

Features: Adds to life of refrigeration equipment, eliminates need of manual defrosting. Control switches designed for electric heating, hot gas, or reverse cycle, or complete shutdown methods of defrosting walk-in, reach-in, display cases, cooling units, and other units where defrosting period is less than 2 hours. From 1 to 8 defrosting cycles can be secured in each 24 hours; duration of cycle adjustable from 15 to 120 minutes as required. Switches can be wired easily into existing installations.

Sludge Remover • • • P-442

Product: "Hep" solvent compound for removing sludge and carbon deposits from refrigerating units. Manufacturer: Wagner Tool & Supply Corp., Long Island City, N. Y.

Features: Chemical solvent cleans and removes sludge and hard blackened deposits found in "stuck-up" compressors and sealed units. Tests by manufacturer are said to show that removal is accomplished in one to five minutes.

Used by placing affected parts in the solution and allowing them to remain until deposits are softened or dissolved, then wiping them off. "Hep" is non-toxic, non-flammable and harmless to skin or clothing. Can be used over and over again without loss of efficiency.

Sealed Condensing Units • P-443

Product: New line of sealed condensing units specifically designed for distribution by refrigeration equipment wholesalers.

Manufacturer: Lynch Corp., Par Compressor Div., Toledo, Ohio.



Features: Called "PARmetic", line comprises three field-tested models, PM-1 (1/6 hp), PM-2 (1/4 hp), and PM-3 (1/8 hp). Designed for both high and low temperature use. Field servicing of models is said to be easy, with models being quickly checked, disassembled, and repaired on location without replacing entire

unit. Other features include capacitor motors (starts under all load conditions); fan-cooled condenser; large receiver capacity, operating on either expansion valve or capillary tube; internal spring mounting for quick operation; compact overall dimensions. Models available for immediate domestic or export shipment. Sold to recognized refrigeration equipment wholesalers.

Bottle Cooler • • • • P-444

Product: "Blue Bird" bottle cooler for restaurants.

Manufacturer: La Crosse Cooler Co., La Crosse, Wis.



Features: Dry storage type cooler is designed to meet special restaurant needs. "Blue" Models finished in baked hammerloid finish on rear top, front, back and ends; doors and front rail are of stainless steel. All "SS" models have stainless steel glass or utility shelf, and stainless steel top, front and ends and aluminum back.

All models have slide-back steel doors, recessed toe space, drain pipe brought out center front; all models are aluminum lined with galvanized steel bottom, and partitions are adjustable to allow variations of 2" in compartments. Insulation is full 3" fiber glass with vapor barrier seal. Blower type coils; hermetically sealed condensing units are used—1/4 in 4-foot unit, 1/2 in 6-foot unit, 1/2 in 8-foot unit. Complete information available on request.

Drier-Filters . . . P-445

Product: "Cross-Flo" drier-filter units.

Manufacturer: Remco, Inc., Zelienople, Pa.

Features: Recently introduced line features two innovations, use of molded Du-Cal Drierite as the drying agent and spun end design. Spun end design, under Wolverine Tube Div. patent, eliminates joints, sweat or soldered connections being integral with the body. Spinning process also

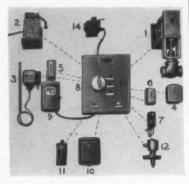
is said to build up or thicken ends of tube, providing thick metal section for silver brazing flare type end fitting. Elimination of joints is also claimed to reduce possibility of leaks. "Cross-Flo" principle flows refrigerant across cylinder bed of drying agent, providing efficient drying and eliminating pressure drop.

Molding the Du-Cal Drierite is said to eliminate dusting, powdering and resultant clogging. This makes entire filter surface available for filtering use, increases efficiency of unit. Drying agent is said to maintain its efficiency to remove moisture at temperatures up to 150 F. New Bulletin R4 is available, explaining new features.

Control System • • • P-446

Product: Single-dial control system for regulating heating, cooling and ventilating systems.

Manufacturer: Midwest Automatic Control Co., Des Moines, Iowa.



Features: System has single master switch in "Magic Dial" master control cabinet. Switch simply has to be turned to one of four positions: "off", "fan only", "cooling", or "heating". Everything in system then clicks into position automatically without use of relays or additional manual switches.

Installation and servicing are simplified by use of standardized instruments and a new numbered wire invented and being patented by the company. Both wires and terminal blocks are numbered (the wire every inch) so that two need only be joined up to eliminate wiring mistakes.

Available for use by air conditioning contractors, the system is now in use in number of installations in Des Moines area and is being supplied

for use in new Minneapolis-Honeywell and Barber-Colman systems, with special numbering and blueprints for each installation.

Replacement Parts • • P-447

Product: New line of replacement parts for Coldspot compressors.

Manufacturer: Delavan Mfg. Co., Des Moines, Iowa.

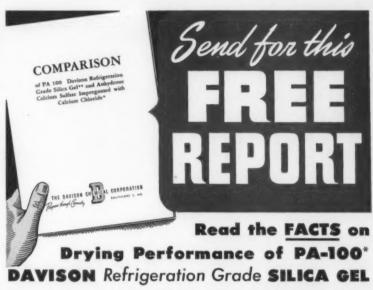
Features: Parts are precision made for greater operating efficiency and are available for practically all late model units. An illustrated bulletin, listing parts numbers on all of the new Coldspot replacements, may be obtained upon request.

Home Freezers • • • P-448

Product: Four new home freezer models ranging in size from 6 to 20 cu. ft.

Manufacturer: Kelvinator Div., Nash-Kelvinator Corp., Detroit.

Features: Four-model line is designed to meet all size and need re-



Gives complete comparison of PA-100 silica gel and calcium sulphatetype drying agents. Shows actual drying abilities in easy-to-read chart form. Erases all doubts as to which is better for drying refrigerants. Backed by conclusive laboratory tests on standard grades of both materials, this factual report gives you, for the first time, reliable, usable data on these three most important properties of any drying agent:

1. Drying properties. 2. Corrosion properties. 3. Dusting properties.

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quirements. Six-foot model is of proved design, new additions are 9, 12 and 20 (illustrated) foot units. All models are chest-type in design. Features include recessed "table top" on 6 foot model, push-button lock on single-lid 6, 9 and 12 foot models.



20-foot chest has two compartments with separate lids, with latches equipped for padlocks.

Model FRL-6 (6-foot) has capacity of 210 lbs.; Model FR-9 (9-foot) has capacity of 310 lbs.; Model FR-12 (12-foot) has capacity of 420 lbs.; Model FR-20 (20-foot) has capacity of 700 lbs. All have plated steel wire baskets to allow access to foods at bottom of freezer. Exteriors are of rustproofed welded steel finished in

Permalux; interiors of corrosion-resisting aluminum with baked-on aluminum finish.

Special "D" shaped refrigerant tube, a new feature, which surrounds storage compartments, exposes maximum surface to heat transfer for faster freezing and lower cost. All models are powered by sealed-in Polarsphere unit. Buzzer alarm is available as optional feature.

Cooling Towers • • • P-449

Product: Line of indoor and out-door cooling towers.

Manufacturer: Kennard Corp., St. Louis.

Features: New cooling towers are of indiced draft type and are available in 3 to 75 ton nominal ca-

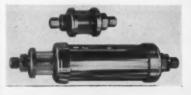


pacities, duplexed to 150 tons. Manufacturer claims many structural superiorities and operating economies due to capacity per unit of price, space and weight. Built with hot-dipped galvanized wheels and scrolls, towers include such features as section construction, "Penta-Post" frame and stainless steel or phosphorous bronze fastenings throughout. Bulletin No. 494 describes line.

Driers, Indicators • • • P-450

Product: Refillable sight driers, sight indicators.

Manufacturer: Cee-Kleer Prod-



ucts Co., Cincinnati, Ohio.

Features: Sight drier combines



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ORIGINAL ELECTRIC DEFROST LOW TEMPERATURE UNIT

For Fast Freezing or Low Temperature Storage, use Freez-E-Fex, the original electric defrost unit.

Completely insulated unit equipped with mechanically interconnected doors and strip heaters that are automatically turned on when doors are closed. Fans remain in operation, blowing heated air over the coils and return bends, defrosting completely the entire coil. Thermostat automatically shuts off strip heaters, eliminating fire hazard.

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sight glass with dehydrator and filter. Unite rated from 1/4 to 1 hp, with 1/4" or 3/8" SAE flare sizes. Construction is of sturdy brass, with copper fittings. Dehydrant substance is 90% silica gel and 10% Drierite, Filtering area is over 10 sq. in. Filter is a combination of 100 mesh screen and 3/64" felt sack, designed to trap sludge and wax, and is said to be easily cleanable. Heavy walled, high pressure sight glass is said to be capable of withstanding pressures in excess of 1,000 psi. Glass itself is nonetching and stain proof. Driers available in 12, 20 and 30 cu. in. sizes. Further information available from manufacturer.

Double-Deck Case • • • P-451

Product: Double-deck self-service refrigerated case.

Manufacturer: C. V. Hill & Co., Trenton, N. J.



Features: Designed for use where maximum display space is desired. Model 256-SS can be "doubled up" by displaying fresh meats on top shelf and dairy items on bottom shelf. Separate temperatures can be maintained on each shelf. Contents of shelves can be varied from day to day, and temperature changed to suit varied needs. For example, meats on top shelf can be held at 30 F, eggs, butter, etc. on bottom shelf at 38 F; or both shelves can be set at same temperature. Extra space for non-refrigerated items included on top of case. Further information available upon request.

Open-Top Cases • • • P-452

Product: Two new "twin" opentop self service display cases for



groceries and markets.

Manufacturer: Frigidaire Div., General Motors Corp., Dayton, Ohio. Features: One case is designed for meat and dairy products, the other for fresh vegetable merchandising. Both cases have storage sections for double-duty use. Constructed of rust-resistant steel with external joints welded and sealed. Insulation 3" at sides, ends, bottom and doors, 2" at top. Exterior of front panels and doors finished in white porcelain, outside ends and top in white enamel. Base recessed for toe space, finished in black enamel. Display shelves afford 1934 sq. ft. area;



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Just before Thawzone is added. Specks are moisture.

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3 minutes after Thawzone is added it reaches ALL the moisture.

You can get rid of moisture quickly with Thawzone. Because it's liquid, Thawzone reaches the moisture sooner. Thawzone isn't fixed in one place. It's free to travel right to the source of trouble.

Thawzone circulates through all the refrigerant at the same time. Besides quicker action, that means no moisture is missed. Thawzone reaches the liquid line, the suction line, the receiver, the compressor. And, instead of holding water, Thawzone destroys it . . . for good.

Use Thawzone in any "Freon," isobutane, methyl chloride or "Carrene" system. Just add 1 teaspoonful (1/8 oz.) Thawzone for each pound of refrigerant. Use half as much in hermetic units. Your wholesaler has it.

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THAWZONE

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constructed in three removable sections. Shelves in meat-dairy case adjustable at rear up to 10-deg. angle; vegetable case shelves adjustable front and rear. Double glass at front of meat-dairy case, single glass in vegetable case. Six wire mesh vegetable baskets available as optional equipment. Mirror (12-ft. square) at rear furnishes background for display. Gravity-type cooling units used; cases designed for use with remotely located condensing units.

Freezer Line • • • • P-453

Product: New "Challenger" line of freezers in 12 and 20 cu. ft. sizes. Manufacturer: Emil Steinhorst

& Sons, Inc., Utica, N. Y.

Features: Supplement regular Steinhorst line of freezers in 12 to 26 cu. ft. sizes, and are less expensive than regular units. Model 6-12 lists at \$347 and Model C-20 at \$440. Both models are of top-opening type, with counterbalanced lids and "Dutch" holdover freezer plates for economical operation. Plates form 3 compartments in C-12 and 4 compartments in C-20. "Breather wall" construc-



tion designed to keep moisture out of insulation. Signal alarm is part of standard equipment; hardware is chrome plated and equipped for locking. Wire baskets available as accessories. Cabinets are of bonderized steel with baked enamel exterior. Insulation is 41/2" on sides, 5" on bottom; Model C-12 has 1/4 hp sealed unit, Model C-20 has 1/2 hp sealed

Load Tester • • • • P-454

Product: Compact electrical load tester for indicating proper wiring circuit for room air conditioners.

Manufacturer: Mitchell Mfg. Co., Chicago.



Features: Unit plugs into wall socket and indicates if wiring circuit is adequate for 1/2 or 3/4 ton room air conditioner operation. Two-way toggle switch controls device for testing either load. Tester (Model LT-49) is finished in black crackle finish, has complete instructions on escutcheon plate on side of tester. Has plastic carrying handle. "White zone" on dial indicates adequate circuit; "red zone" shows circuit is inadequate and that new circuit is required before air conditioner is installed.

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Illuminated Door • • P-455

Product: "Display All" refrigerator display door and vertical light combination.

Manufacturer: A. H. Witt Co., Los Angeles, Calif.

Features: Thermopane glass

49 FAST ANSWERS TO 49 EMERGENCIES

Refrigeration V-Belts in a Portable Assortment

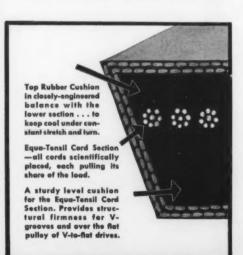
The 49 V-Belts in greatest demand by Refrigeration Service Men have been selected for this U. S. Rainbow V-Belt assortment.

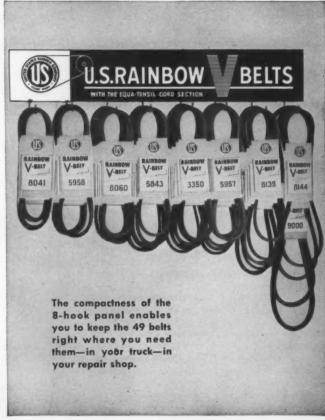
With this compact stock you can be ready with the exact belt needed. These 49 cover service on hundreds of domestic and commercial refrigeration units, ice-cream machines, frozen-food plants, air-conditioning systems and other allied equipment.

Each belt has the unique Equa-Tensil Cord Section—the U.S. Rubber development which provides great pull and endurance.

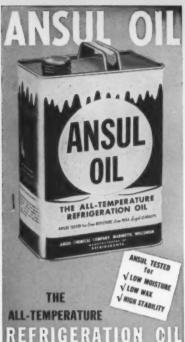
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positive closure of reach-in space when not in operation. Special locking arrangement activated by fingertip pressure also prevents doors from popping open when walk-in door is in operation. Doors equipped with double seal and supported by nonsagging heavy duty hinge. Combination is completed by vertical tubular light installed behind door mullion. Light is 48-inch, 40-watt light encased in heavy white lucite vacuum tube.

Diaphragm Switch • • • P-456

Product: Diaphragm pressure switch.

Manufacturer: Industrial In-



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strument & Gauge Div., Electric Auto-Lite Co., Toledo, Ohio.

Features: Unusually accurate. Can be made to make or break contact at an accuracy of plus or minus 1/4 pound. Designed to indicate pressures ranging from 10 to 25 pounds, but will be available in other ranges.

Pipe Line Strainers • • P-457

Product: New series of pipe line strainers.

Manufacturer: Maid-O'-Mist, Inc., Chicago, Ill.



Features: Made in three sizes with 3/8-inch i.p. tap inlet and outlet for use on water, air, or gas lines. Unusually large screen areas assure efficient removal of dirt, rust, scale, and other foreign matter without noticeable drop in line pressure. 80mesh monel woven wire screen can be quickly removed for cleaning. No internal threads to rust or freeze.

Evaporative Condenser • P-458

Product: "CPE" type evaporative condensers now available in larger

Manufacturer: Baltimore Aircoil Co., Inc., Baltimore, Md.

Features: Models now available in capacities from 10 to 100 TR (illustrated). Feature true counterflow heat transfer with both air and water. Have lower hp requirement than conventional types. Built compactly and completely self contained. Fan is located on "dry" side, so is not subject to corrosive action of damp air. All working parts readily accessible for service.

Clamps and Straps • • P-459

Product: New line of small clamps and straps for use with the smaller sizes of copper tubing or electrical wires.



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SILVALOY 50	50%	1160°F	1175°F

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operation of motors, magnetic valves, etc. is due to improper terminal voltage.

© Checks for blown fuses, accidental grounds, circuit continuity. Useful for electrical troubleshooting in general.

shooting in general.

Not subject to error of "false indication" common to neon test lamps.

lamps.

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INDUSTRIAL DEVICES, INC., EDGEWATER 11.N.J.



Manufacturer: Victor Specialties, New Rochelle, N. Y.

Features: Fabricated of high quality brass, copper, stainless or plated steel. Available in 1 or 2-hole styles, either plain or reinforced. Straps can be obtained in 2, 3, and 4-gang units where multiple lines are to be carried. Clamps are manufactured in either the single or duplex styles, the latter holding two lines or wires with a single clamp.

Water Cooler • • • P-460

Product: Water cooler with storage compartment and ice cube tray section.

Manufacturer: Sunroc Refrigeration Co., Glen Riddle, Pa.



Features: Cooler has capacity for serving needs of 10 to 15 persons, plus storage compartment of 2 cu. ft. for storage of snacks and ice cube section with three trays capacity. Can be used in offices or in recreation rooms, dens, or small apartments where space is limited and storage requirements light. Available in either pressure or bottle type, with standard crinkle grey finish. Special colors obtainable on request.

Pipe Plugs • • • • • P-461

Product: New hex socket pipe plugs.

Manufacturer: Allen Mfg. Co., Hartford, Conn.

Features: Designed for use with dryseal taps and developed for use where perfect seal is absolutely essential and any sort of sealing compound would be unsafe or inadvisable. Plugs

are entirely pressure formed and threaded. Heads are cold drawn, retaining the full strength of metal fibers. Perfect hexagon socket. Available in size range from 1/16 to 1½ inch.

Diffuser-Light • • • P-462

Product: Combination air diffuser and pendant light.

Manufacturer: W. B. Connor Engineering Corp., New York City.



Features: Designed for use in locations where plans call for light and air diffuser to be located at same spot on ceiling. Modification of diffuser now available will accommodate any pendant light fixture, manufacturer claims. Diffuser retains all of its functional features, and lighting can be incorporated in any size or type of diffuser with or without air volume damper or other accessories. Assembly details and dimensions listed in Bulletin K-23.

Ultra-Violet Tubes • • P-463

Product: "White Seal" ultra-violet lethal tube especially designed for use under refrigerated conditions.

Manufacturer: Pasteuray Corp., St. Louis, Mo.

Features: Guaranteed to burn at high intensity for a minimum of 1 year. Generates and transmits more bacteria-killing lethal energy than any previous tube. Does not darken, cannot "blow out", and starts instantly without starters. Cold cathode tubes come in 14, 20, and 30-inch lengths for coolers, display cases, and processing tables.

BUFFALO FORGE NAMES TWO VICE PRESIDENTS

Henry W. Wendt, chairman of the board of Buffalo Forge Co., has announced the election of two new directors, Charles C. Cheyney and Arthur M. Kiely, increasing the number of directors from five to seven.

Cheyney started his career with Buffalo Forge in the engineering department. He later was in charge of the Chicago office, and became assistant sales managèr and later sales manager, in which position he continues.

Kiely during the early part of 1930 made a financial survey in South America for Buffalo Forge and upon his return became connected with the company in work covering financial and tax matters. He continues as controller of the Company.

ALL-YEAR SYSTEM FOR NEW HOSPITAL

Two modern developments in air conditioning—the Carrier absorption refrigerating machine and conduit weathermaster system—will be comSPECIFICATIONS for the new county jail now under construction in Clearwater, Fla., call for the installation of air-conditioning equipment in the special ward for the confinement of insane persons awaiting transportation to the state hospital at Chattahoochee. The rest of the structure will not be artificially cooled.

Air conditioning of the "insane" ward, which is located in the new jail basement, will make that department one of the most modern in Florida, it was explained.

Men of science, in their studies of the eare of the mentally deranged, have discovered that persons thus afflicted should be housed, if possible, in quarters maintained at or slightly below body heat. Exact temperature control, of course, is obtainable only with air conditioning equipment.

bined in a year-around air conditioning system in the new Self Memorial Hospital now under construction in Greenwood, S. C.

The new hospital, an ultra-modern, five-story structure, with a penthouse on the roof, is being constructed, at no cost to the community, by The Self

Foundation, of which J. C. Self is president.

The Carrier weathermaster system, with provides individual room control of temperature and humidity, is to serve all patient rooms. There will be separate air conditioning systems for operating suites, nursery, delivery rooms, cafeteria and miscellaneous other rooms wherein it is important to control temperature and humidity for storage purposes.

All but the cafeteria equipment will be served by chilled water from the absorption refrigerating machine for cooling purposes, and warm water from the hospital steam plant for heating. The absorption machine will have a refrigeration capacity of 200 tons.

BENJAMIN FOSTER CO. TO HANDLE FIBERGLAS

Philadelphia's Benjamin Foster Co. has established a new division to handle Fiberglas industrial insulations for both hot and cold applications. In charge is George W. E. Foster, vice president.





Yes, this amazingly low-priced PREMIER Self-Aligning Valve Grinding Kit makes it easy for any refrigeration service man to grind, finish and test recessed or flush valve seats in little more time than it takes to read this ad! No more tiresome hand lapping. Pays for itself in reoperating as few as six valve jobs! Compactly packed in handy case for easy handling.







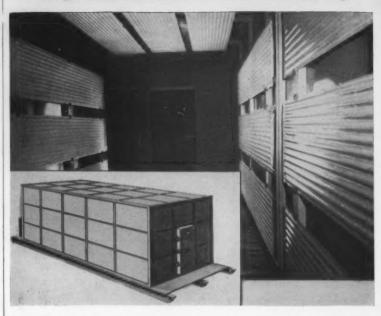
DOOR GASKET CORNER NOTCHER

Offers greater leverage—less effort—has tempered steel blade adjustable 22½° to 90°. Blade is replaceable. Reasonably priced. Also available with fixed 90° blade.

*Name Copyrighted



Cargo Reefer Aids Overseas Shipping



Limited facilities for transportation overseas of perishable and frozen foods have presented a major problem to many shippers and steamship companies. The scarcity of mechanical equipment and the unusually high cost of providing refrigerated space in existing bottoms has greatly retarded overseas shipments from U. S. processors.

Practical and economical transportation of perishables via the waterways has now been achieved, it is claimed, through development of the Reco "Cargo Reefer".

These portable, refrigerated, walk-in coolers can be handled fully loaded and stowed either on deck or below. Through their use it is often possible to provide revenue producing cargo space in areas usually producing little or no cargo revenue.

The Reco Cargo Reefer is being built by Reco Products Div. of Refrigeration Engineering Corp. in cooperation with Kold-Hold Mfg. Co.

The reefers are of heavy, all steel, welded construction, and are insulated and refrigerated so as to produce zero-temperature storage even when the vessel is cruising in climates where ambient temperatures are as high as 120 F. For this purpose, 18 Kold-Hold "Serpentine" refrigeration plates are mounted on the side walls and ceiling of the box.

The refrigeration machinery may be self contained or permanently mounted below in the vessel. Frequently, the ship's refrigeration facilities can be utilized.

The condensing units are connected to the plate coils by means of two snap-on fittings which can be easily connected or disconnected. Thus, individual Cargo Reefers can be dropped off and exchanged for similar empty Reefers at the destination.

When the refrigeration machinery is mounted on the Reefer, it consists of two condensing units equipped with 115 volt, d.c. marine-type motors. Each condensing unit is connected to alternating plates to provide proper distribution of refrigeration in event of the failure of one unit.

Use of portable Cargo Reefers will, it is felt, parallel similar developments in the rail field and will make possible the offering of a wide variety of new services in the water transport industry.

PARKER MFG. CO. BUYS "TROJAN" SAW FIRM

Parker Mfg. Co., Worcester, Mass., announces the acquisition of Ackermann-Steffan Co., Chicago, manufacturers of Trojan Brand coping, jig, power machine and jewelers' saw blade, and coping, jewelers', scroll and hack saw frames.

The Chicago firm will be known as the Ackermann-Steffan Div. of Parker Mfg. Co.

DETROIT CERTIFIED

ETROIT CERTIFIED VALVES and CONTROLS





designed right

built right

proven right



When you install Detroit Certified Valves and Controls you are providing your customers with the best in refrigeration equipment. Detroit Certified Valves and Controls are designed and built to fit your customer's needs—giving real economy and reliability through years of trouble-free service. This is true of the entire Detroit line, one of the most complete in the refrigeration field. Add to this the fact that Detroit has been famous for quality for over 70 years and you

have an unbeatable combination. But DETROIT goes even further, certifying every valve and control in its line—backing you, your work and your reputation. For helpful information on ordering and installing DETROIT Certified Valves and Controls, send for the colorful DETROIT Catalog No. 200-B today.

No. 573 Thermostatic Expansion Valve— Designed for small commercial installations, Double diaphragm construction makes close superheat control possible at low suction pressures. The two-diaphragm gas charged power element provides motor overload protection in its simplest, most effective form. ½ ton, Freon-12. Write for Catalog No. 200-B.



5900 TRUMBULL AVE., DETROIT 8, MICHIGAN DIVING OF ARRICON RADIATOR & STANDARD SERVICES RAILWAY & ENGINEERING SPECIAL TES. LTD.—MONTREAL. TORONTO. WINNIPEG



DETROIT HEATING AND REFRIGERATION CONTROLS • ENGINE SAFETY CONTROLS • FLOAT VALVES AND OIL BURNER EQUIPMENT • DETROIT EXPANSION VALVES AND REFRIGERATION ACCESSORIES • STATIONARY AND LOCOMO-

No. 573

ESSORIES • STATIONARY AND LOCOMO-

Souring home and industry, American-Standard . American blower . Church seats . Detroit Lubricator . Kewanee Boiler . Ross Heater . Tonawanda Iron

organization.

The changes necessary to put this new policy in effect were begun in May, 1946, as the company began to shape its post-war expansion program. At that time the comparatively small number of dealers franchised did little servicing and installation work and in localities where no dealer was established the company sold direct to large industrial firms, institutions and local chain stores.

With a strong dealer organization as its objective, the company then set about eliminating all activities which would be in competition with dealers. Service contracts held by the company were given to dealers for renewal, with distribution of the contracts based on the location of the account to be served. Every effort was made to strengthen the position of existing dealers and establish new dealers who would do an aggressive selling and competent servicing job.

This activity created so much good will among dealers that General Electric Co. recently extended the territory covered by R. Cooper Jr., Inc. to include all of Northern Illinois. In addition, General Electric has passed on to Cooper the function of jobbing G-E refrigeration and air conditioning parts and supplies.

CONTRACTORS WARNED ON PRICE-CUTTING

Refrigeration contractors and other similar concerns who cut prices to meet a competitor's reduction may lay themselves open to charges of illegal price discrimination, the Refrigeration Contractors Association of Detroit points out in a recent bulletin to its members.

"Generally, the Robinson-Patman Act covers a price concession for any cause," the bulletin states. "Companies must be ready to vindicate their special price in terms of cost savings if the action gives advantage to one customer over competitors. Up to now it was considered that this rule wouldn't be applicable in an instance where a price cut was made to meet competition.

"The Seventh Circuit Court of Appeals ruled differently, saying that the Federal Trade Commission is not

stopped if the seller submits evidence that he was forced to cut his price to meet competitive offers. It's only one factor to be weighed against price cut damages to competitors.

"The court, however, says that 'meeting competition' sometimes can justify differential pricing. The FTC will tend to weigh:

"The amount of damage the seller would suffer if he isn't able to offer a special price.'

"The amount of injury to competition amongst the seller's customers and others if a special price cut was made.'

"The above decision, rendered in a case involving the Standard Oil Co., does not apply to price concessions to customers not competing with any other of a supplier's accounts. But it's difficult to know exactly where seller's goods will end up at and the Court's ruling tends to make most competitive price allowances dangerous."

FT. LAUDERDALE HAS EXAMINING BOARD

The newly-formed air conditioning and refrigeration examining board of Fort Lauderdale, Fla., recently met with city manager Rankin to discuss methods of operation. The board, established by a new city ordinance, is composed of five men under the chairmanship of Ralph Taylor, city electrical inspector.

The ordinance sets up standards for the installation of air conditioning and refrigeration equipment. Besides Taylor, the examining board is comprised of two masters and two journeymen in this field. Their appointment was confirmed by Rankin after they had received the approval of a consensus of dealers and technicians.

LIQUOR STORES MUST BUY OWN FIXTURES

Liquor wholesalers and distributors cannot lawfully furnish display fixtures, refrigerated or otherwise, to retailers in Nebraska, according to an opinion recently given the State Liquor Control Commission by the attorney general's office.

However, the distributor may suggest an arrangement for the display or liquors, wine or beer by the retailer and may provide signs for the

HOW THE ARMY LEARNS



Evidence of the continuing interest of the regular Army in the field of commercial refrigeration is this demonstration unit erected by the refrigeration shop of the post engineer at Fort Sam Houston, San Antonio, Tex., as a part of the post's Army Day demonstration. The post's refrigeration department, under the direction of Ted Gawron, conducts a training school for its mechanics and service engineers. This unit is used in regular classroom instruction. Among the manufacturers whose equipment is represented in this display are Brunner Mfg. Co., Penn Electric Switch Co., Sporlan Valve Co., Detroit Lubricator Co., and Jas. P. Marsh Co. The frosted sign is made of ½4-inch tubing. (Photo and information furnished by United Refrigeration Co., San Antonio wholesaler of refrigeration supplies and equipment.)

same, not exceeding \$100 in cost, if nothing else of value is furnished.

The opinion pointed out that Nebraska law does not bar the liquor store dealer from buying display fixtures and equipment provided he does not get them directly or indirectly from the liquor manufacturer, distributor, or wholesaler.

COOLING CONTRACTOR MOVES QUARTERS

Y-B Refrigeration & Air Conditioning Co., Inc., Clearwater, Fla., has moved into newly completed quarters in the First National Bank building.

The new store features ultra-modern interior and exterior designs and contains an air-conditioning system which was installed by the Y-B company itself.

Noting the progress of the Y-B company since it first opened for business Nov. 1, 1945, T. R. Yarborough, co-owner, said the firm started as a two-man organization. Today it has 12 employes. The company is a dealer for Frigidaire.

MULTIPLE CARTONS mean **MULTIPLE PROFITS**

at no extra cost to you!

BECAUSE

assures original quantities

saves time and handling

provides neater stocks and improved inventory control carton within a container assures a clean, dust-free product

promotes sales of 4.6.8.12 items at one time

order from your wholesaler MUELLER BRASS CO.

TATAL

PORT HURON, MICH.

ferences are being projected to more than 3,000 individual commercial refrigeration and air conditioning

dealerships.

W. F. Switzer, commercial sales manager, headed the group holding meetings in the eastern region. F. E. Lehman, assistant commercial sales manager, headed the Pacific region meetings; M. C. Schenk, national business sales manager, the central region; B. C. Wagner, commercial retail sales manager, the southeastern region; and E. C. Lewis, assistant manager of sales training, the southwestern region.

Six regional commercial sales managers also helped the factory group conduct the special district conference meetings. They were W. F. Layer, eastern; A. G. Foote, Pacific; H. H. Ward and H. F. Harter, central; A. C. Doak, southeastern; and R. T. Potter, southwestern.

COOLING PAYS ITS WAY, FOOD CHAIN DECIDES

Results of a single test installation last year have led to a decision to air condition an entire chain of supermarkets, in one of the first large-scale air conditioning projects for food stores in the New York metropolitan area. Typhoon Air Conditioning Co., Inc. of Brooklyn, N. Y. reports that Shopwell Foods, Inc., which placed Typhoon units in its Scarsdale outlet in 1948, have now ordered units for a total of 10 stores, with additional installations now in the planning stage.

A careful analysis of sales figures in the warm weather months following the first trial disclosed a sharp climb in summer volume to a point which exceeded the best winter months. These gains, registered in the face of keen competition from the giant chains, convinced Shopwell executives that business increases more than pay for the cost of air

conditioning.

Initially 5-ton Typhoon units were used in these stores. This year, the new Typhoon 10-ton unit has been selected as the answer to super-market requirements. Kadar Air Conditioning Co. is handling the installation.

DESIGNED TO STIMULATE ICE CREAM SALES



A merchandising display providing something completely new in the way of an inexpensive self-service superstructure for ice cream cabinets has been designed by Frigidaire Div., General Motors Corp. Constructed of metal, these new superstructures are easy to use with any Frigidaire ice cream cabinet of double-row design. One or more of them may be used, depending upon the size of the cabinet. Lids may be kept closed or folded back and remain open during business hours. Each "Merchandiser" is equipped with four horizontal channels for flavor strips or item slides, together with vertical channels for a 10 x 12-inch display card or illustration.

"PORTABLE" MEAT CASE DOES "OUTDOOR" SELLING

A "portable" refrigerated meat display case, mounted on heavy caster wheels, does a good "outside selling job" for Thomas' supermarket in downtown St. Louis. The case is rolled out onto the sidewalk in front of the market each morning, where it gets attention from the hundreds of persons, workers and shoppers, who pass by the market.

Best use of the case has been in pushing seasonal meat items (hams for Easter, sausages and frankfurters for summer outings, poultry for Thanksgiving, fish for Lent, etc.) The case is a Hussmann unit, equipped with an extra frame and casters (costing \$25) to allow it to be rolled in and out of the market.

Jack Balk, manager of the market's meat department, estimates that the novel case paid for itself in two months' time in increased meat sales. The case is powered from an electric outlet installed in front of the store.

71 COOLERS SOLD TO OFFICE BUILDING

Installation of 71 "Oasis" water coolers, with bubblers and glass fillers, in the 32nd St. annex of The Pennsylvania railroad's general office building in Philadelphia is announced by Elliott-Lewis Corp., Philadelphia distributor for Ebco Mfg. Co., Columbus, Ohio.

"SUPERS" SEEN BOON TO BOTTLED BEER SALES

Some rather interesting facts that may influence bottled and canned beer sales in the future are included in the eighth annual edition of "A National Survey of the Brewing Industry", released recently by the Research Co. of America.

According to the survey, packaged beer sales are showing a steady rise in comparison to sales of draft beer through saloons and eating places. This is a post-war development, inasmuch as draft beer was the primary sales outlet for the product pre-war.

One of the new trade outlets which could profitably be concentrated on, the survey points out, is the supermarket field, where "impulse buying" could be capitalized upon to get a larger share of the \$61/2 billion spent by the food-shopping populace each vear.

Beer sales in the larger supermarkets have been responsible for a profit margin of over 2% in themselves as compared with a profit margin for all products of slightly over 1%, the survey notes, adding that one out of every three beer-drinking families now buys beer in case lots. The survey foresees a possible 95 million barrels maximum within the next decade, as compared with a previous high of some 88 million barrels.

BUY FROM YOUR REFRIGERATION WHOLESALER



Designed and Engineered for Maximum Performance

STRAINERS
CHECK VALVES
SIGHT GLASSES
QUICK COUPLERS
RECEIVER VALVES

REFILLABLE DRIERS
ANGLE GLOBE VALVES
PACKED GLOBE VALVES
CHARGING HOSE VALVES
PACKLESS ANGLE VALVES

PRESSURE RELIEF VALVES
UNI-HOLE COMPRESSOR VALVES
ECONOMIZERS (HEAT EXCHANGERS)
CYLINDER & SERVICE DRUM VALVES

FILTERS
MANIFOLDS
CHARGING HOSE
RAPID CHARGERS
GAUGE MANIFOLD

RAPID CHARGERS
GAUGE MANIFOLDS
PACKED LINE VALVES
SAE FLARE FITTINGS
PACKED ANGLE VALVES
PACKLESS LINE VALVES
HAND EXPANSION VALVES
NON-REFILLABLE DRIERS
DOUBLE PORT SIGHT GLASSES

HY-E ECONOMIZER ACCUMULATORS
PACKLESS BRANCH SHUT-OFF VALVES

157

If you haven't a copy of our new SUPERIOR Catalog R-3, request one today.

Superior Valve and Fittings Co.



"Freon" Advertising Talks Facts to help you sell your prospects!



Sound promotions accurately aimed can play a big part in the continued expansion of any industry . . . and Kinetic Chemicals is well aware of this fact. This year, in support of the air conditioning and refrigeration industry, Kinetic is running three highly selective advertising campaigns . . . each directed at men who have the power of specifying or buying your equipment or service.

In "Architectural Record," the current "Freon" series features articles by independent experts that are based on a survey of what architects want to know about air conditioning. In "Modern Industry," business executives in all fields are learning how air conditioning and refrigeration have solved many manufacturing problems. And in "Quick Frozen Foods," the importance of safe refrigeration is being stressed to frozen food packers and retailers alike.

With these campaigns . . . plus periodic story commercials on Du Pont's "Cavalcade of America" radio show (10,000,000 regular listeners) and in the "Du Pont Magazine" (130,000 readers) . . . Kinetic hopes to increase knowledge of air conditioning and refrigeration among the people you sell. It is to our interest as well as yours that we're telling this story to your own best customers and prospects!

Kinetic Chemicals, Inc., Tenth and Market Sts. Wilmington 98, Del.



FREON SAFE

REFRIGERANTS

"Freon" is Kinetic's registered trade mark for its fluorinated hydrocarbon refrigerants and propellents

ABOUT PEOPLE . . .

Continued from page 39

Peerless of America, Inc., with which company he had been associated for 12 years in various phases of refrigeration work. Previous to his joining Peerless, he had been with Lipman (General Refrigeration), Servel, Inc., and Copeland.

Appointment of Delavan Engineering Co., Des Miones, Iowa, as midwestern representatives for the Grand





Daubert

Barber

Rapids Brass Co., was announced in Grand Rapids, Mich., by David Ralston, sales manager of Grand Rapids Brass.

L. L. Daubert, general sales manager, and A. W. Barber, manager of refrigeration sales at Delavan Engineering, will represent the Grand Rapids Brass line of commercial refrigeration hardware in the North and South Dakota, Nebraska, Iowa and Kansas territories.

Since its organization in 1937, the Delavan Engineering has been closely associated with refrigeration, heating and air conditioning in this section of the country.

Mrs. M. K. Kok, who has been connected with Baltimore Aircoil Co., Inc., since April, 1947, has been elected a treasurer of the company at the recent board of directors' meeting. Announcement of Mrs. Kok's election was made by John Engalitcheff, Jr., president of the company.

Henry M. Brundage, manager of the automatic heating division of General Electric Co.'s air conditioning department, Bloomfield, N. J., was awarded the honorary degree of mechanical engineer by the Stevens Institute of Technology at commence-

ment exercises held recently in Hoboken, N. J. The degree was conferred by Dr. Harvey N. Davis, president of the Institute, in recognition of Brundage's contribution in the field of public service.

M. L. Finneburgh has been appointed general sales manager of



the soda fountain division of Liquid Carbonic Corp., Chicago, following the resignation of W. D. Jordan, former vice president of the division. Finneburgh has been with

Liquid Carbonic since 1929, when he joined the company as a salesman in Cleveland. Prior to his present appointment, he was central regional manager directing sales of soda fountains in 12 states.

Frank D. Ross has been appointed district manager of the St. Louis



office of Vilter Mfg. Co., Milwaukee, manufacturer of refrigeration and air conditioning equipment. Previously, the office duties were assumed on a part time basis by the company's

Southern Wisconsin-Iowa territory manager, H. H. McKinnies.

Ross has been in the refrigeration business since 1927. He spent the past $3\frac{1}{2}$ years as manager of a refrigeration and air conditioning distributorship in Honolulu, but prior to the war he was with the Vilter distributor in New York City.

Allan M. Douglass, formerly sales manager of the Insulation Division of National Gypsum Co., has been named general manager of the KoolShade-Storm-Shade department of the Ingersoll Steel Div. of Borg-Warner Corp. The appointment was announced by R. C. Ingersoll, president of the Ingersoll Steel Div.

Appointment of Mark E. Mooney as zone manager for commercial re-



frigeration and food freezers for Carrier Corp., covering the eastern's eaboard states from Virginia to Maine, is announced by C. U. Spriggs, assistant general sales manager.

Mooney, a veteran in the refrigeration field, is chairman of the Joint Industry Engineering Committee of the Refrigeration Equipment Manufacturers Association and the Air Conditioning and Refrigeration Manufacturers Association, and also is chairman of the small compressor section of ACRMA.

Previously a product manager for Carrier's commercial refrigeration line, Mooney will concentrate entirely on developing key eastern markets not only for this line but also for Carrier's newly designed 15 and 30 cu. ft. food freezers. He will work out of both New York and Philadelphia in covering New York state and Pennsylvania, New England, New Jersey, Delaware, Maryland and Virginia.

H. N. McMenimen, Jr., has been appointed manager of distribution



McMenimen

sales of General Electric Co.'s air conditioning department. In his new appointment, McMenimen will be responsible for all departmental sales activities through resale channels of air conditioning,

commercial refrigeration, water coolers, and refrigeration machines. He will report directly to the manager of marketing. Formerly a vice president and general manager of a division of Reynolds Metals Co., McMenimen joined G-E in February of this year. In another shift in the air conditioning department, L. E. Thompson has been appointed manager of product service and renewal parts sales. Thompson will continue his activities as manager of renewal parts and, in addition, will take over responsibilities for the activity of the headquarters field engineering group.

More efficiency for Compressors



More business for you

Texaco Capella Oils assure both these benefits

DEALERS and distributors who sell Texaco Capella Oils . . . service engineers who put them in customers' compressors . . . all do more business because Texaco Capella Oils assure better compressor operation.

Texaco Capella Oils do not react with refrigerants. They are highly refined, moisture-free and exceptionally stable. Compressors and coils stay clean because Texaco Capella Oils have very low pour tests and very high resistance to gumming and sludging. Available in every needed viscosity . . . in 1-qt., 1-gal., and 5-gal. sealed containers.

Leading compressor manufacturers approve the use of Texaco Capella Oils . . . and you'll do a more profitable business with them. The Texas Company, 135 East 42nd Street, New York 17, N. Y.

FREE LUBRICATION GUIDE-Latest edition. Lists makes and types of compressors and refrigerants used in 63 Electric Refrigerating Units and 31 Air Conditioning Units. Shows recommended grade of Texaco Capella Oil for each. Use guide as wall chart, or bind into service manual.



TEXACO Capella Oils
FOR ALL AIR CONDITIONING AND REFRIGERATING EQUIPMENT



THE PRACTICAL Refrigeration Applications MANUAL... by Harold Smith

THE Practical Refrigeration Applications Manual extends a helping hand to those refrigeration and air conditioning men who occasionally encounter field engineering problems too tough for them to handle. Space limitations make it impossible to give complete detailed information covering each step necessary for the nistallation or erection of refrigeration equipment, insulation or fixtures. It is necessary to assume that those readers who request assistance with their problems are familiar with these basic fundamentals. If they are not, it is suggested that they seek this advice from their sources of supply when purchasing the materials which they intend to use on the job. Most suppliers are equipped to furnish such information. Readers are urged to submit their problems to this department. Each letter of inquiry will be answered personally by the author. The most interesting ones will be pulished in these columns. All problems should be clearly and completely stated and addressed to: COMMERCIAL REFRIGERATION AND AIR CONDITIONING, Manual Dept., 1240 Ontario St. Cleveland 13, Ohio.

PROBLEM

WOULD like your advice as to what type of equipment I should use in a walk-in freezer which will be used to hold chickens.

"The freezer in mind will be 6x6x6 feet (approximately), with an 18-inch cement floor and 8-inch cork side walls. The ceiling also will have 8 inches of cork insulation. I would like to maintain a temperature of zero to -5 F.

"As near as can be figured, a total of 500 chickens every six months will be stored in the freezer. To distribute the heat load, an average of 25 chickens a week could be killed and placed in the freezer, rather than waiting and overloading the unit. The weight of the chickens will average about 4 pounds apiece.

"For the sake of computation, figure on placing about 25 freshly killed and dressed chickens in the freezer each week.

"Now I'd like to know what size compressor to use, what type and size of coils, and what type of control for most efficient and economical operation. I'd also like to know what you think of the insulation I plan on using. The inside of the unit will be boarded, including the ceiling. The floor will remain unboarded. What size door should I use? The compressor will be placed outside the freezer, open to the air but with a small roof over it."

SOLUTION

YOUR letter does not clearly state whether the dimensions of the cooler, which you give as approximately 6x6x6 feet, are outside or inside dimensions. This, of course, makes it somewhat difficult to determine the actual inside area.

Eight inches of cork on the walls and ceiling is good insulation, entirely satisfactory provided the cork is properly bonded to prevent moisture infiltration. We would suggest you talk to your cork source of supply before installing the insulation. They will furnish complete information on proper erection.

Is the 18-inch cement floor already laid? If not, we would recommend you also use 8 inches of cork in the floor. Five inches of cement on the bottom, followed by 8 inches of cork with 5 inches of cement on the top.

As you did not give us this information, we must assume that the room already has been constructed as outlined in the letter. We would, of course, like to see cork in the floor if at all possible, as the floor is a steady source of heat leak, through the cement, unless some type of insulation material is used to restrict its flow.

If the floor has already been laid, we would suggest you attempt to use at least 4 inches of cork on top of the 18-inch floor, with three or four inches of cement on top of the cork. Insu-

lation in the floor will materially lower the heat load on this installation, paying for itself over a reasonable period of time.

The door to the cooler should be from 30 to 36 inches wide if the cooler is to be entered with loading trucks or wide trays.

We would recommend the use of eight freezer plates for cooling inside the refrigerator, with these plates set horizontally in groups of four on each side of the door along the walls.

We would recommend two parallel circuits with the four plates on each circuit run in series, locating the expansion valve for each circuit at the bottom plate and taking the suction line off the top plate. Hand shutoff valves should be installed on each liquid line and each suction line close to their connection with the plates so either circuit may be cut off to change expansion valves or to work on the plates or connections.

A small fan placed in the cooler to circulate the air inside the cooler will increase the efficiency of the operation. We would recommend the use of a %-hp air cooled condensing unit using Freon-12 refrigerant operating at -20 F refrigerant temperature with a capacity of approximately 3500 Btu per hour.

The installation may be satisfactorily controlled by the low pressure switch. However, if closer temperature control is desired, the use of a room thermostat operating a solenoid valve installed on the liquid line will provide this closer control.

If no insulation is used in the floor we would recommend that two circuits of five plates each be used in the cooler and a 1-hp air cooled condensing unit substituted for the %-hp unit

NINE-MONTH SEEGER EARNINGS SHOW RISE

Net earnings of Seeger Refrigerator Co. in the nine months ended May 31, 1949, were \$2,742,841 after provisions for state and federal income taxes, compared with \$2,006,305 in the corresponding period a year before, Walter A. Seeger, president, announces.

The latest nine month earnings were equal to \$2.49 a share on 1,000,000 shares of capital stock outstanding, compared with \$1.82 a share on the same number of shares in the comparable period of the preceding fiscal year. Gross sales in the nine months were \$52,017,005, compared with \$42,686,041 in the corresponding period a year before.

BUY FROM YOUR REFRIGERATION WHOLESALER

DRYSEAL



every inch has the same uniform quality!

 When you order DRYSEAL Refrigeration Tube, you can be sure of fine, uniform quality in every inch of every length you buy.

DRYSEAL Copper Refrigeration Tube is uniformly soft, so that you can bend and flare it easily. It has a new type of mechanical end seal that permanently keeps the interior of the tube clean and dry; and the seal is compact enough to pass through any opening large enough for the tube itself. In addition, DRYSEAL is made to new, more economical dimensional standards. And it comes to you in a new package that protects the tube, keeps it bright and clean, and is readily identifiable in stock. DRYSEAL Tube comes in sizes from ½" to ¾" O.D., and is packed two 50-foot coils to a package.

Next time you buy refrigeration tube, ask for REVERE DRYSEAL by name. You can get prompt delivery from leading distributors throughout the country.

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.



Over the COUNTER

REWA Region No. 5 Elects Officers



E. L. Semeyn, John Blair, and Ned Mason (left to right) relax on a terrace overlooking the St. Clair river after having been elected secretary - treasurer, chairman, and director, respectively, of REWA's Region 5.

(Photo by Austin Jones, Kerotest.)

John M. Blair, manager of the refrigeration department of Williams & Co., Inc., Pittsburgh, Pa., was elected chairman of Region No. 5 of the Refrigeration Equipment Wholesalers Association when that group held its most recent meeting at St. Clair Inn, St. Clair, Mich.

Edward L. Semeyn, parter in Midwest Refrigeration Supply Co., Grand Rapids, Mich., was elected secretary-treasurer of the regional group for the current year, while N. K. "Ned" Mason, president of Mason Supply Co., Columbus, Ohio, was named as

the region's REWA director for a 3-year term.

Several manufacturers representatives active in the area covered by Region No. 5 also attended the meeting.

In addition to the business sessions held during the two-day meeting, the delegates (many of whom were accompanied by their wives) also managed to work in a few rounds of golf as well as a cocktail party and dance at the Black River country club, through the courtesy of Mueller Brass Co.

SIMONS CO. NAMED AS G-E PARTS DEPOT

The Joseph Simons Co., Hartford, Conn., has been franchised as a parts depot for G-E refrigeration condensing units and parts, according to an announcement by General Electric Co.'s air conditioning department.

As a parts depot, the company will handle the sale of G-E condensing units up to and including 10 hp. It also will stock repair and replacement parts for all G-E condensing units, and G-E sealed condensing units for replacement purposes. It will serve the area including Maine, Connecticut, Vermont, and parts of Massachusetts.

Approximately sixty similar parts depots have been set up throughout the country by General Electric to promote the sale of condensing units and to facilitate the distribution of renewal parts to fixture and equipment manufacturers' c u s t o m e r s, wholesalers, retailers, and servicers.

CUTLER-HAMMER OPENS GARY SALES OFFICE

Opening of a sales office at 504 Broadway, Gary, Ind., is announced by Cutler-Hammer, Inc. The new office is being opened to meet the expanding need for Cutler-Hammer motor control and allied electrical apparatus in the Gary area.

F. J. Burd will manage the office as a branch of the company's Chicago district sales office. H. Kolar, formerly in the electrical engineering department of the Carnegie-Illinois Steel Co.'s South Chicago works, will assist Burd.

Larson Supply Co. Opens New Headquarters in Allentown, Pa.



Greatly improved display facilities, increased room for storage of equipment stocks, and extended parking and loading space all add



up to better merchandising opportunities for the Allentown, Pa., headquarters of Larson Supply Co. At right the staff lines up.

New Aetna Supply Co. Building Has Self-Service Feature





A glass brick front adorns the exterior of this new headquarters of Aetna Supply Co., New York City wholesaler of refrigeration parts

and supplies. On the inside of this new establishment a partial self-service arrangement reflects current merchandising trends.

CARRIER EARNINGS

Net profit of Carrier Corp. for the 12 months ended April 30, 1949, was \$2,083,320 as compared with \$2,349,697 in the preceding similar period.

Completed sales totaled \$51,198,-786. The comparable figure for the 12 months ended April 30, 1948, was \$55,050,376. New orders were booked in the amount of \$48,634,081. The

total for the preceding 12 months was \$46,139,159.

An April 30, 1949, backlog of unfilled orders amounted to \$20,174,779 as compared with \$23,304,757 a year earlier.

BUY FROM YOUR REFRIGERATION WHOLESALER

23 FRIGIDAIRE UNITS HAVE "STEP-CONTROL"

Twenty-three heavy refrigerating compressors produced by Frigidaire are equipped with new "step-control" devices, designed to reduce costs and afford increased efficiency for large air conditioning systems, W. F. Switzer, commercial sales manager, has announced.

By automatically cutting out two of four cylinders, the new "step controller" reduces the refrigerating capacity of heavy compressors when equipment is operating under a partial load. Switzer pointed out that in many air conditioning applications, capacity regulation is sometimes considered the most practical approach when light or medium load conditions exist. The new device is installed on 7½, 10, 15 and 20 hp reciprocating compressors for use with city water, water tower and evaporative condenser type cooling systems.

By using "step-control", it is claimed refrigerating capacity can be reduced 50% for 7½ and 10 hp compressors; 33½% for 15 hp compressors, and from 25 to 50% for the large 20 hp models.

FLORIDA COOLING FIRM IN NEW LOCATION

Gedney and Associates, air conditioning dealership, St. Petersburg, Fla., has moved to a new business location at 2536 Central Ave., one block west of its former quarters. M. M. Gedney is head of the company.

A WAREHOUSE AT THE END OF YOUR TELEPHONE!YOUR REWA WHOLESALER

Your REWA wholesaler maintains completely adequate local warehouse facilities with complete stocks of all the leading manufacturers. You can get what you want quickly and correctly by telephoning your order or visiting his store.

No need to "shop around" when you buy from your REWA wholesaler. You can pocket the difference in time saved and take advantage of this important extra convenience.

For a Personal Interest in Your Requirements
See Your REWA Wholesaler

180 MEMBERS MAINTAINING OVER 300 CONVENIENT OUTLETS

BUY FROM A



MEMBER

H S. McCloud Executive Secretary

920 East McMillan St., Cincinnati 6, Ohio

ANSUL SHOWS SOUND FILM ON SOLIDS TO SERVICEMEN

This year it is estimated that more than 10,000 service engineers will see "Solids in Refrigeration Systems" a 50-minute educational sound-slide film which portrays the chemical and physical changes that cause trouble in refrigeration systems.

Written by Walter O. Walker. director of research for Ansul Chemical Co., the full-color film is the feature of a program package staged by the company's salesmen at re-

frigeration meetings.

A general discussion always follows the film's showing, and refrigeration men are urged at this time to write to Dr. Walker for more complete analyses of their refrigeration problems.

NEW NORGE WHOLESALER IN CENTRAL OHIO AREA

Callander-Lane Co., Columbus, Ohio, has been named Norge distributor for central Ohio. Callander-Lane Co., is headed by D. G. (Gale) Callander, president and R. H. Lane, vice-president and (Dick) treasurer.

WHY DO YOU LOSE **CUSTOMERS?**

CCORDING to a recent survey, A here is how most retailers lose customers: 1% die; 3% move, 5% because of business friends; 9% because of lower prices; 14% due to grievances; 68% because of indif-

Note that only 9% are lost because of prices but 68% because of indifference! Need we say more?

SEALED UNIT COURSE AT YMCA SCHOOL

Courses in refrigeration sealed unit servicing are being offered at the YMCA Trade & Technical School, New York City, on a limited basis, director Louis L. Credner has announced.

The sealed unit courses supplement the school's regular courses in refrigeration servicing. At present, classes are limited to eighteen. Only YMCA Trade School graduates or servicemen with an equivalent of experience or training will be enrolled.

The day classes last for a period of six weeks and the evening students attend class for six hours each week for a period of 30 weeks.

COOKS AND COOLS WITH ELECTRICITY

Ultra-Cold Corp., Los Angeles, now has its "Frigid-Chef" refrigerator-range combination available for electric cooking as well as with gas burner units. The electrical model has a 2100-watt burner and two 1250-watt elements, plus a 4-cu. ft. refrigerator with 8 sq. ft. of shelf area, two ice cube trays, and a vegetable storage bin. The unit is available with color trim to match any kitchen.



BUY FROM YOUR REFRIGERATION WHOLESALER

(FOR THE FIFTH TIME IN 5 MONTHS PAR ANNOUNCES) A NEW SERIES OF CONDENSING UNIT MODELS

The ONLY SEALED UNIT Designed For Distribution Through Refrigeration **Equipment Wholesalers**

PAR PRESENTS PARMETIC

We're proud to bring you for the first time in refrigeration history an exclu-sive wholesaler sealed unit with all the headaches removed. For example, take field servicing. PARMETIC'S three thoroughly field-tested Models, PM-1 (1/6 H.P.), PM-2 (1/4 H.P.) and PM-3 (1/3 H.P.) high and low temperature, can be quickly checked, disassembled and repaired on location without replacing the entire unit. Many other exclusive features, too, make PARMETIC the first sealed unit ideally suited for wholesaler distribution since it gives customers the kind of trouble-free performance so typical with the PAR line.

IF YOU'RE A REFRIGERATION EQUIPMENT WHOLESALER, GET IN TOUCH WITH US AT ONCE. WRITE, WIRE OR PHONE FOR COMPLETE DETAILS ON THE HOTTEST ITEM TO HIT THE INDUSTRY IN 10 YEARS.

BY COMPARISON-YOU'LL BUY PAR

Only PARMETIC Gives You These Features

- Designed for distribution throug Refrigoration Equipment Whole
- Easily serviced in the field.
- Capacitor motors (starts under all load conditions).
- Fun cooled condenser.
- Large Receiver Capacity (operates on expansion valve or capillary tube).
- Internal spring mov (vibrationless—silen
- Compact overall dimens Thoroughly field tested.
- Models for low temperature as well as high temperature applications.
- There's NO unit like PARmetic.





PAR COMPRESSOR DIVISION PAPER







Replace it right with RANCO

-most complete line of replacement controls on the market!



Replacement Controls, precision-built by Ranco, give the accurate, dependable, trouble-free service that means more satisfied customers and more profits for you. Select from the most complete line ever supplied to the trade—the quality line of both general and exact replacements for domestic and commercial installations. See your Ranco wholesaler today. Replace it right with Ranco!

- specialists in refrigeration
- dependability
- greater customer satisfaction
- · less stock to carry
- · more profit to you



World's Largest Manufacturers of Refrigeration Controls . . . more than 20,000,000 controls now in use

HERE'S HOW!

Edited by Warren W. Farr

How Long Do Fresh Meats Stay Fresh?

Here's some information that may be helpful to you in answering some of the questions you get from customers, especially homemakers, in regard to how long meat and meat products can be kept in good condition in a home refrigerator.

Researchers at Swift & Co. have completed a year's study on this subject, and their findings are tabulated below. The recommended holding times assume that the meats are fresh when purchased, the handling of meat from store to home refrigerator is good, and the home unit is kept at temperature between 36 and 38 F.

BEEF

Standing rib roast	5-8	days
Round steak	3-5	days
Hamburger (not frozen)	2	days
Liver (sliced)	2-3	days
Sliced dried heef	12	days

PORK

Loin chops	3	days
Pork sausage links		
in normal cellophane		
wrappings	3	days
Sliced bacon	7	days
Ham halves	7	days
Picnic ham (whole)	10	days

9 do it this way...

HERE is an idea that will eliminate much of the fire hazard and all of the smoke and soot in the use of gasoline-type leak detectors. Simply use alcohol to heat the burner, instead of gasoline. Only about one-half as much alcohol is required, when used in place of gasoline.

R. F. Sherfy, Sunbury, Ohio

HERE is a maintenance tip for any serviceman who may have occasion to work on some of the old Frigidaire (low side float) water coolers. In many instances, these units pump their oil charge up into the float, resulting in a stuck-up compressor.

To remedy this condition, disconnect the water connections to the cooler and tip the cooler forward about 5 inches. This allows any small amount of oil left in the compressor to lubricate the seal. Then turn the flywheel by hand until it turns easily.

After this, run the compressor intermittently for a few moments. This will draw the oil from the float to the compressor crankcase. As an added precaution, it is wise to check the oil level and add any oil that is needed.

This procedure has worked in every instance that I have tried it, and has resulted in saving a lot of time on a service job which otherwise would necessitate the removal of the compressor.

Ben Zomkowski, New York, N. Y.

water these p into ek-up

He points out that it is necessary to use a shaft assembly of similar construction to the original when making this repair replacement. It is important to be certain that the eccentric taper on the shaft of the replacement is identical to the one being replaced.

semblies, taken from defective tem-

perature controls out of warranty, in order to have a replacement shaft

to put on a good control when the

shaft is broken.

Points on Installing Low Pressure Systems

2. Locating and installing the refrigerant metering device requires careful consideration, particularly concerning the capacity which should balance with that of the cooling coil and the condensing unit. As the thermostatic expansion valve is the most commonly used refrigerant metering device, we will assume its application throughout this discussion. It should be connected to the inlet connection of the cooling unit or coil and the bulb of the thermostatic power element firmly clamped to the suction line close to the evaporator outlet.

LAMB

Loin chops	5-6	days
Leg roast	6-7	days
Hearts	2	days

VEA

Loin chops	5-6	days
Liver (sliced)	2-3	days
Sweetbreads	2-3	days

MEATS READY FOR TABLE

Frankfurters	4-6 days
Bologna, baked loaves, luncheon meats Liver sausage (uncut)	4-6 days

Maintenance Tip

Refrigeration servicemen may benefit from this hint sent in by a field engineer who has serviced many makes and styles of refrigerators.

He suggests that all servicemen should keep the bakelite shaft as-

9 do it this way...

SEVERAL times in ordering replacement motors for small blower coils I have received motors that run in the wrong direction.

To change the rotation of these small shaded pole motors simply remove the end bells from the motor, turn the armature end for end, and then replace the end bells again. The motor will now operate in the reverse direction.

Melvin Lembke Detroit Lakes, Minn.

Asphalt vs. Air

Today most low temperature insulation is erected in hot asphalt. The reason for this lies in the fact that asphalt is far more than an adhesive. Actually its primary purpose is to stop the infiltration of air and moisture.

Walls of ordinary construction are extremely porous. One square foot of an average 13-inch brick wall can allow enough air (at 40-pound pressure) to pour through in an hour to fill a 4.83-foot cube, even though the wall is plastered with 1/2-inch of portland cement.

Until 20 years ago, almost all low temperature insulation was erected and finished with portland cement. This construction was entirely adequate for the approximately 32 F temperatures being used during this period, but as the use of lower temperatures became prevalent, air infiltration through the relatively porous portland cement was the cause of many insulation failures.

The crux of the problem was the moisture carried by the air. The moisture froze after lodging between the building walls and the insulation, WANT TO EARN \$5?



You don't have to be a writer or a literary genius! Just jot down some of the shortcuts you've developed in your maintenance or installation work and send them to HERE'S HOW EDITOR, COMMER-CIAL REFRIGERATION AND AIR CON-DITIONING. Your \$5 will be paid promptly when your maintenance tip is published in the magazine. Let's hear from you!

and the pressures exerted by this "icing up" literally pushed the insulation away from the wall.

The specially compounded asphalts which are available today have all the

qualities to solve the moisture infiltration problem. This asphalt makes a better adhesive than portland cement, and its permeability to air is practically zero.

As used today the asphalt specification consists of a heavy coat of asphalt priming paint applied to a portland cement back plaster with the insulation erected against this surface in the special hot asphalt.

Although the portland cement back plaster is used mainly to prepare irregular masonry walls to provide a true and level surface, it also functions as a partial air barrier against soft and porous masonry construction. The priming paint, designed to penetrate the plaster and key to it, has a threefold purpose: it reinforces the air seal, bonds thoroughly to the plaster, and provides a satisfactory base for bonding with the hot asphalt when the insulation is erected. The erection asphalt not only acts as the adhesive but also serves as a positive barrier against air.

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ORDER NOW and Make the Most of the Amcoil Story



AMERICAN COILS COMPANY, 360 THOMAS ST., NEWARK 5, N. J. AUGUST, 1949 . COMMERCIAL REFRIGERATION

OPPORTUNITIES

(Classified Advertising)

Rates: for "Positions Wanted," \$4.00 minimum, limit 25 words. For all other classifications, \$4.50 minimum for 25 words or under, each additional word 15e; boldface type or all capitals, \$7.50 minimum for 25 words or under, each additional word 20c. Box addresses count as five words, other addresses by actual word count. All advertisements in this section are payable in advance.

POSITIONS WANTED

Sales and Service Engineer. Thoroughly experienced in design, layout, erection, and operation of commercial and industrial refrigeration equipment and insulation. Freon and Ammonia. Details gladly furnished with excellent references. Available 30 days. Box 8149.

POSITIONS AVAILABLE

Air Conditioning and Refrigeration Engineer with practical experience. Extended program offers excellent opportunity. Give full particulars, advising salary expected. Box 8349.

BUSINESS OPPORTUNITIES

Houston, Texas—Well established Commercial & Air Conditioning Sales and Service business for sale. For details write Box 8249.

FOR SALE

PRICED TO REDUCE INVENTORY: % HP Universal Units #DD33-F, open, heavy duty. Delco Motor Capacitor. 2 Belt Pulley Air Cooled. Original Crates—Factory Guaranteed. Priced \$69.00; 10% with order, bal. C.O.D. No phone calls. Frozenaire Refrigerator Co., 1327 Poplar St., Philadelphia 23, Penna.

ONE WESTINGHOUSE 100 HP HER-METICAL SEAL COMPRESSOR only. Type CLS 3400—Style: LM 92046—Serial No. 021950 KU. Refrigerant: Freon 12. Built directly into Westinghouse Motor: 208/220 v., 60 cyc., 3 ph., 100 hp, 1155 rpm. Full load Amps. 265-252. This is a 16 cylinder unit, equipped with 50% unloaders, high and low switch and accessories such as oil failure devices. Motor totally enclosed. USED, but in EXCELLENT condition. Price \$1000.00 fob Cincinnati, Ohio. Allied Materials Handling Co., 237 Mill St., Cincinnati 3, Ohio.

TRAINING AVAILABLE

DETROIT AIR CONDITIONING INSTITUTE will start classes on SEPT. 13th, offering instruction in BASIC and ADVANCED REFRIGERATION, AIR CONDITIONING and HEAT PUMP ENGINEERING. Write TODY for full information on this G.I. approved program. Detroit Air Conditioning Institute, Unit F, 4125 Grand River, Detroit, Mich.

MANAGES COOLING FIRM

W. B. Campfield has been named general manager of Acme Air Conditioning Co., Ocala, Fla., dealer for Chrysler Airtemp and General Electric cooling equipment.

G-E APPARATUS DEPT. CHANGES PRICE POLICIES

The General Electric apparatus department returned substantially to its pre-war price policies, effective June 1, H. V. Erben, general manager and vice president of the department, has announced.

Erben pointed out that certain exceptions are necessary in the case of long delivery items.

"Consistent with its pre-war policy on the sale of light equipment with a short manufacturing cycle which frequently is purchased by future delivery orders," Erben declared, "the company will protect the purchaser on shipments made within 90 days after a price increase."

All other apparatus department lines of equipment, he said, will be sold "on the basis of the quoted price being maximum with provision for downward adjustment in the event of general price reductions in the particular product line."

BUY FROM YOUR REFRIGERATION WHOLESALER



The Marsh Freezer Thermometer is the newest development in Marsh refrigeration instruments—and a much needed one! For permanent installation in connection with locker plants, walk-in coolers, even home freezers, it gives the owner a means of continuously checking temperature by merely glancing at the easy-to-read dial of the instrument which is provided with five feet of capillary tubing so that it can be located at any convenient viewing point outside the unit. No need to open doors or remove lids. It also provides a thermometer, combined on the same dial, to indicate reom temperature, The upper ("freezer") scale reads from —30° to +65° F.; lower ("room") scale from +20° to +90° F.

The large easy-to-read figures and markings are a part of the handsome styling throughout. Case is black enameled with chromium trim. Capillary tubing is slender enough to pass between the door and jamb of any type of refrigerator or quick-freeze unit. A convenient mounting bracket is provided so that installation can be made in a few minutes.

This instrument is a "natural" for your customers who operate locker plants, commercial boxes, quick-freeze and storage units in plants, food stores, and homes. It is the finishing touch to every refrigeration job—the constant indicator of the functioning of the refrigeration unit—the safeguard against food spoilage due to power failure, mechanical failure or improper operation.

Write for complete descriptive literature

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It's easier to pick the right replacement with the Aerovox up-to-date listings. Ultra-compact round-can Universal types have screw terminals — don't bother with soldered connections. Aerovox hardware housings, end caps, mounting brackets — means quicker, neater jobs. And you get that refrigerator motor started in jig time.

All adding up to FASTER PROFIT for you — and LAST-ING PROFIT too because there are no return calls "to make good."

Ask your supplier-or write us - for latest literature. Count on that local stock for your argently needed capacitors.



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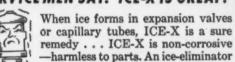
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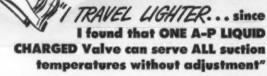
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Maybe you've been caught with only an air conditioning valve in your kit, and the job at hand calling for a sub-zero valve!

That's when you appreciate the "all-temperature" versatility of an A-P LIQUID CHARGED Thermostatic Expansion Valve. You use the same valve, without adjustment, for all evaporator temperatures from minus 40° to ordinary air conditioning temperatures. That takes in your low temperature freezers, commercial temperature display cases and coolers, and high temperature unit air conditioners.

This means packing only three or four A-P LIQUID CHARGED Thermostatic Expansion Valves and you're all set for ALL temperatures, and ALL capacities from ½ ton to 16 tons Freon 12. You'll really travel lighter — and save many an extra trip back to the shop.

LIQUID CHARGED A-P Model 212 Thermostatic Expansion Valve with Pressure Limiting Feature. Adjustable Superheat. Capacity — ½ and 1 ton Freon 12 and Methyl. Limit pressures: Freon, 15, 40, and 55 lbs. Methyl, 10 and 30 lbs.

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AUTHENTICATED BUYERS

WITH THE

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- 3 PRODUCT INTEREST
- 4 INCREASED SALES
- **S** LOWERED SELLING COSTS

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